JOURNAL

of the

INDIAN MEDICAL ASSOCIATION

VOLUME 31 NUMBER 8 CALCUTTA OCTOBER 16, 1958

Published twice a month. Annual Subscription : Inland Rs. 24/- ; Foreign Rs. 30/- Single copy : Inland Re. 1/- ; Foreign Rs. 1.25

for Rapid Results in B Avitaminosis

JEXIN BRAND

VITAMIN B COMPLEX

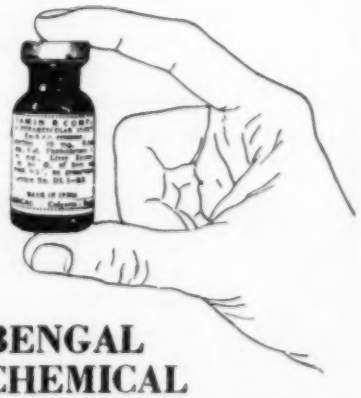
FOR PARENTERAL USE

Indicated in clinical and subclinical manifestations of Vitamin B Complex deficiency associated with acute or chronic diseases. Meets increased physiological demand for B Vitamins in pregnancy and during lactation.

In boxes of 2 c.c. ampoules and 10 c.c. rubber-capped phials

Also available for Maintenance Therapy

Vibiton
Elixir Vitamin B Complex
and
Vitamin B Complex
Tablets



BENGAL CHEMICAL

CALCUTTA • BOMBAY • KANPUR

'Cetavlon'

CETRIMIDE B.P.

(Improved Quality)

Dual Action Antiseptic

Bactericide : Detergent

Non-toxic, non-irritant, 'Cetavlon' in its new form is an ideal antiseptic. Applicable in a variety of cases, this *improved* product has the following advantages:

- Highly bactericidal in low concentration.
- Shows increased bactericidal potency against a wide range of Gram-positive and Gram-negative organisms, including the highly resistant Pseudomonas pyocyanea.
- Removes all contaminating matter in wounds and burns and therefore obviates the use of soap.
- Non-toxic and non-irritant even on raw surfaces.
- Solutions are more easily prepared and economical in use.

In hospitals, private surgeries and in First Aid, 'Cetavlon' is indispensable.

In addition to the powder, 'Cetavlon' is available as an aqueous Concentrate (20%), a Tincture (0.5%) and as a Cream ('Cetavlex').

Comprehensive literature, packings and prices on request

IMPERIAL CHEMICAL INDUSTRIES (INDIA) PRIVATE LIMITED

Calcutta Bombay Madras New Delhi

ICI

Sole Distributors in India for

IMPERIAL CHEMICAL INDUSTRIES LIMITED, PHARMACEUTICALS DIVISION
WILMSLOW, CHESHIRE, ENGLAND

ICP 654

TABLE OF CONTENTS

ORIGINAL ARTICLES: Page

1. Carcinoma of the Oral Cavity—P. N. Wahi, S. N. Saxena and Pashpati Nath Wahi ... 309
2. An Analysis of 120 Aspiration Needle Biopsies of the Kidney—L. R. Sarin and J. C. Sarin ... 319
3. Fibromyoma of the Uterus with Special Reference to Sarcoma—D. J. Reddy, V. Kameswara Rao and K. Gopalakrishniah Gupta 323

CASE NOTES:

1. Hamartoma—L. Preger and B. P. Tribedi ... 326
2. Benign Myalgic Encephalomyelitis—B. B. Bhatia, Satish Chandra and Chhabi Bhusan ... 327
3. Chronic Lead Poisoning—S. Devadatta and S. Varghese 328

EDITORIAL: Page

Problem of Oral Cancer in India 331

CURRENT TOPIC:

Medical Council of India 333

NOTES AND NEWS 336

CORRESPONDENCE 338

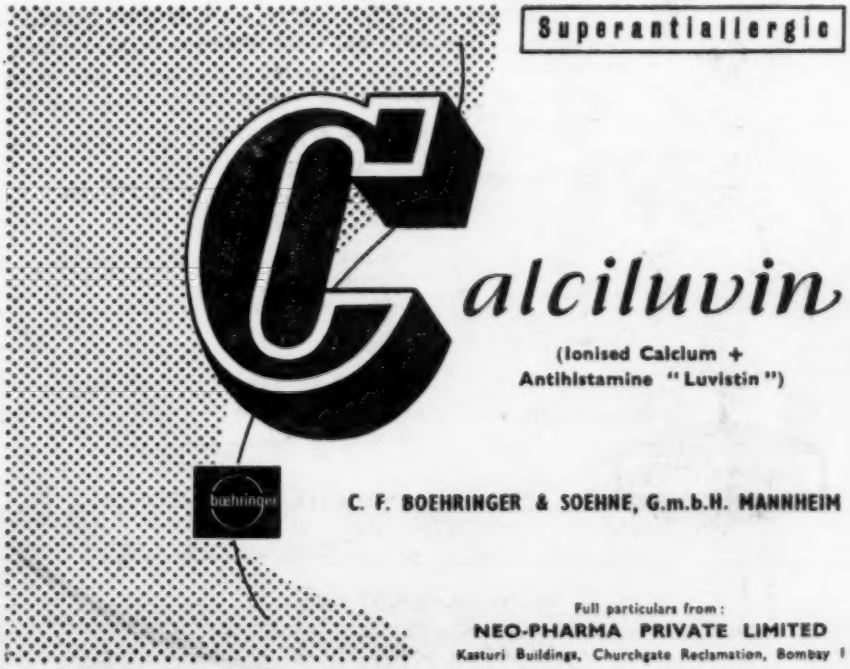
REVIEWS 338

OBITUARIES 340

SUPPLEMENT:

V Annual Territorial Conference, Bombay, 1958 341

Branch Notes 343



Bromo-Raulfin

THE CLASSICAL RAUWOLFIA PREPARATION

Bromo-Raulfin is a total extract preparation of Rauwolfia Serpentina containing all the alkaloids, resin fraction and laxative principle present in the drug. It is screened from fully matured plants and is assayed and standardised in every stage of manufacture. The trace material Mist. Pot. Brom et Valeriana has a synergistic action on the drug.

Composition per dram :

Rauwolfia factors

Total alkaloids	...	1.65 mg.
Resin fraction	...	1 mg.
Laxative principle	*in natural proportion.*	

Additives

Mist. Pot. Brom et Valeriana	1·0 ml.
Ext. Glycyrrhiza Liq.	0.3 ml.

Eastern Drug

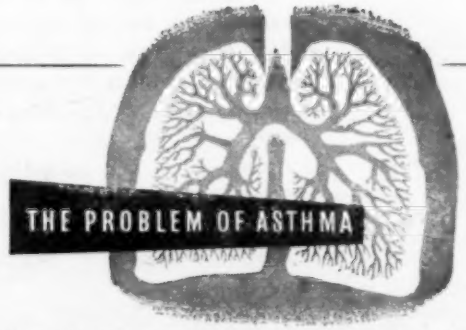
EASTERN DRUG CO. LTD.

CALCUTTA-27

BR-J-130

INDEX TO ADVERTISERS

	Page
Adeco Limited	xix
Alembic Chemical Works Co. Ltd.	xiv
Alliance Trading Corporation Pvt. Ltd.	xxxii
Atlantis (East) Limited	xix
Bengal Chemical & Pharm. Works Ltd.	1st Cover
Bengal Tuberculosis Association	3rd Cover
Bengal Immunity Co., Ltd.	xxvi
British Felsol Co.	iii
British Drug Houses (India) Pvt. Ltd.	xxxii
British Overseas Airways Corporation	xxxi
Burroughs Wellcome & Co. (I) Pvt. Ltd.	xiii
Calcutta Clinical Research Assn. Ltd.	3rd Cover
Capco Private Ltd.	xxiii, xxx
Chowgule & Co. (Hind) Private Ltd.	vi
Ciba Pharma Private Ltd.	xv
Cipla Ltd.	xi
Crookes Laboratories Ltd.	vii
Dumex Private Ltd.	xxvii
Eastern Drug Co. Ltd.	ii
East India Pharmaceutical Works Ltd.	xxii
Geoffrey Manners & Co. Private Ltd.	x, xxiv
Hindustan Lever Ltd.	xxi
Himalaya Drug Co.	xxviii
Imperial Chemical Industries (I) Pvt. Ltd.	2nd Cover
Indian Oxygen Limited	xxxiii
John Wyeth & Brother Ltd.	iv, xxxiv
Kothari Book Depot	viii
Lederle Laboratories (I) Private Ltd.	xxviii
May & Baker (India) Private Ltd.	xiv
Mendine Pharmaceutical Works	viii
Neo-Pharma Private Limited	i, v
Nestle's Products (India) Ltd.	xvi
Oriental Pharmaceutical Industries Ltd.	xii
Phytosynth Laboratories Ltd.	viii
Pfizer Eastern Corporation (Ravison Pharmaceuticals Pvt. Ltd.)	Back Cover
Raptakos Brett & Co., Private Ltd.	xii
Ravison Drugs Private Ltd.	xviii
Sarabhai Chemicals	ix
Scientific Publishing Co.	3rd Cover
Standard Pharm. Works Ltd.	xx
Surid Geigy Trading Private Ltd.	xxix
Unichem Laboratories Ltd.	xxv, xxix
W. T. Suren & Co. Private Ltd.	xvii
Zandu Pharmaceutical Works Ltd.	vi



A search for the causative origin of asthma can indeed be a tedius one, but always the underlying factor—BRONCHOSPASM—can be treated immediately with FELSOL. Physicians in all parts of the world to which it has been introduced, have for years relied implicitly on FELSOL for the instant relief it gives in an attack of asthma, no matter what the basic cause. FELSOL acts directly on the bronchial musculature and indirectly through the vagus and sympathetic.

Rapid in action—Prolonged in effect
Full relief in perfect safety

Clinical sample and literature on request.

THE ANGLO-FRENCH DRUG COMPANY (ESTN.), LTD.
24-26 TARDEO ROAD, BOMBAY, 7.

BRITISH FELSOL COMPANY LTD., 208/212, ST. JOHN STREET, LONDON, E.C.1

Just one capsule a day

Plastules with Vitamin B12 represents a practical, common-sense approach to the management of all nutritional anaemias. Given in a ONE-A-DAY dosage schedule, Plastules provide the following essential factors for a speedy haemopoietic response:

- ★ *Vitamin B12*
- ★ *Folic Acid*
- ★ *Liver Extract*
- ★ *Yeast*
- ★ *Ferrous Iron*

PLASTULES* B12

HAEMATINIC COMPOUND

Packing : *Bottles of 30 and 300 capsules*

Wyeth

JOHN WYETH & BROTHER LIMITED

(Incorporated in England with Limited Liability)

Steelcrete House, Dinshaw Wacha Road, Bombay 1.

J. 48

*Trade Mark

2 ORAL ANTIDIABETICS

NADISAN (BZ 55)

ORIGINAL CARBUTAMIDE

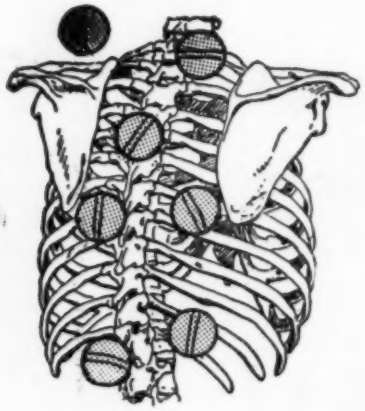
ARTOSIN (D 860)

ORIGINAL TOLBUTAMIDE

boehringer

C.F. Boehringer & Soehne GmbH
MANNHEIM, Germany

Full details from:
NEO-PHARMA PRIVATE LTD.
Kasturi Buildings, Churchgate Reclamation, Bombay-1



New drug for Tuberculosis

A preparation of Isoniazid Salt of
Para Amino Salicylic Acid,
effective in all forms of Pulmonary Tuberculosis.
In cases of resistant to other T. B. drugs
Pasinh has given beneficial results.

Packings:
100 & 500 Tablets of 50 mg.
50 & 250 Tablets of 100 mg.

Also Pasinh Compound Tablet (Pasinh reinforced with Vitamins)

Pasinh Tablet

ZANDU PHARMACEUTICAL WORKS LTD.,
GOKHALE ROAD SOUTH, BOMBAY 28

Graphic 7 24

PERISTON "N"

6% polyvinylpyrrolidone
(mean molecular weight 12600)

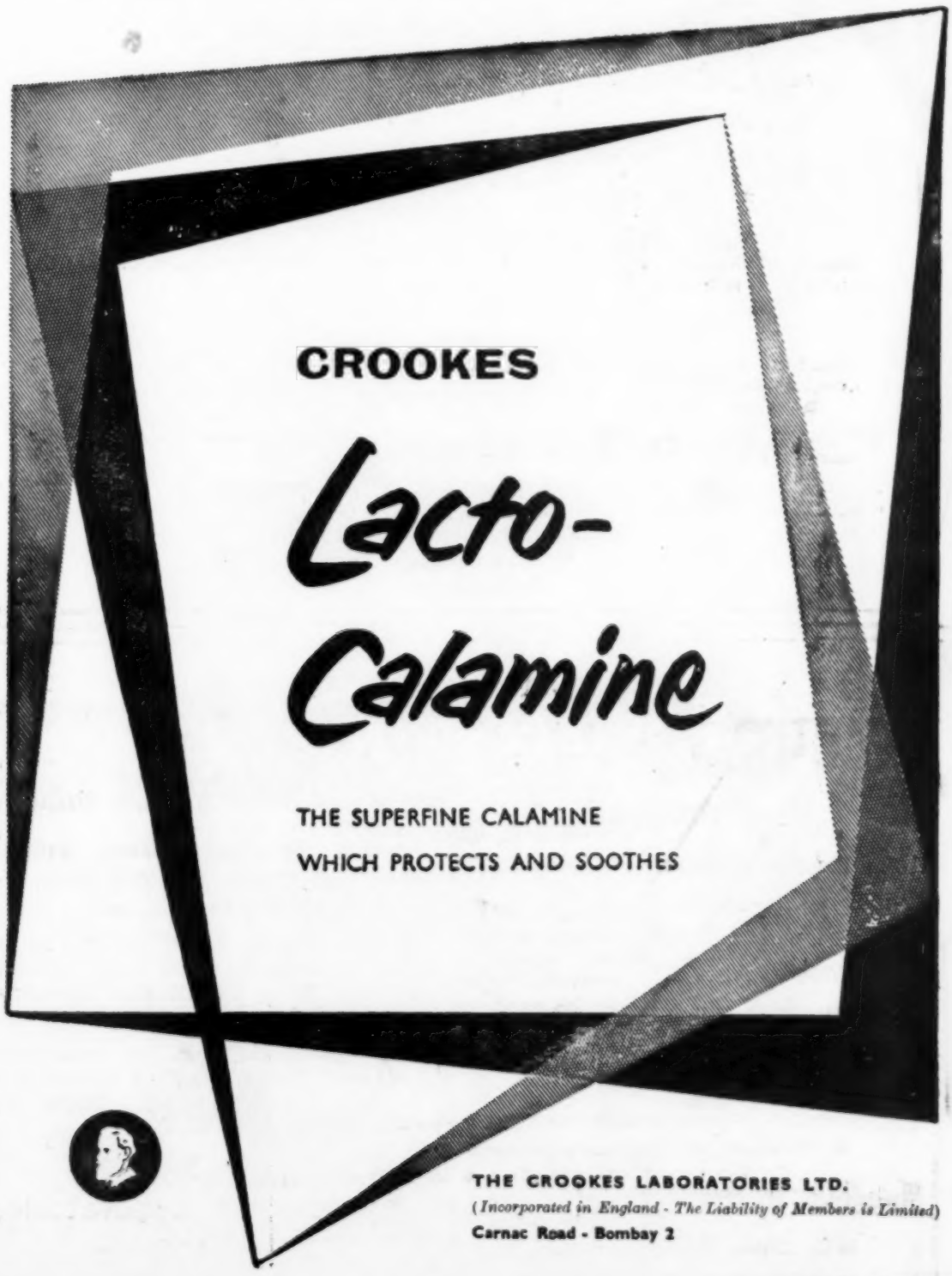
for
RAPID DETOXICATION OF BLOOD AND TISSUE
in

diphtheria, tetanus, dysenteries, typhoid, botulism, drug-poisoning, liver diseases, epidemic dropsy, ascites, poliomyelitis, encephalitis, burns, hyperemesis gravidarum, etc. Also, as a diuretic in nephritis-nephrosis, eclampsia, etc.

Infusion bottles of 100 cc.

BAYER
"Bayer"
LEVERKUSEN, GERMANY

SOLE IMPORTERS IN INDIA
CHOWGULE & CO. (HIND) PRIVATE LTD.
P.O. BOX 1478, BOMBAY 1.
P. O. Box 8943, Calcutta 13 : P. O. Box 3738, Madras 2



THE CROOKES LABORATORIES LTD.
(Incorporated in England - The Liability of Members is Limited)
Carnac Road - Bombay 2

KOTHARI'S IMPORTANT ANNOUNCEMENT

We are glad to announce that we have been appointed SOLE DISTRIBUTORS in INDIA for :

CHINESE MEDICAL JOURNAL

(Published monthly in English)

The Official Organ of the Chinese Medical Association

Contents include original articles on various aspects of Medical Research, Clinical Reports and field studies of public Health and related subjects ANNUAL SUBSCRIPTION Rs. 21 65 nP. payable in advance.

We can also enlist subscriptions to the following Chinese Periodicals :

	annual subs.		annual subs.
China Pictorial (monthly)	Rs. 3.00	Chinese Literature (monthly)	Rs. 5.00
Chin Sachitra (Hindi Ed. of China Pictorial)	Rs. 3.0)	Women of China (Bi-monthly)	Rs. 1.40
		China's Sports (Bi-monthly)	Rs. 1.80

A beautiful Illustrated 1959 Calendar will be sent free to subscribers who enter or renew their subscriptions before 31st December, 1958.

THE KOTHARI BOOK DEPOT (Regd.)

Estd. 1935

Exclusive House for Medical Books

KING EDWARD ROAD,

PAREL, BOMBAY-12.

Syrup Allarex

For Asthma

As an ideal combination of reputed indigenous antispasmodic drugs, e.g. Kuth, Kantikari with ephedrine, aminophyllin etc., SYRUP ALLAREX offers extraordinary relief in a large variety of Asthmatic conditions.

●

For literatures and samples, apply

Mendine Pharmaceutical Works

36B, Alipore Road, Calcutta-27.

In

"COLD" and "RHINITIS"

R/

RINANTA tablets.

Contains the new synthetic antirhinitic drug DIPHENIN (0.3 mgms and Salicylamide 300 mgms per tablet.

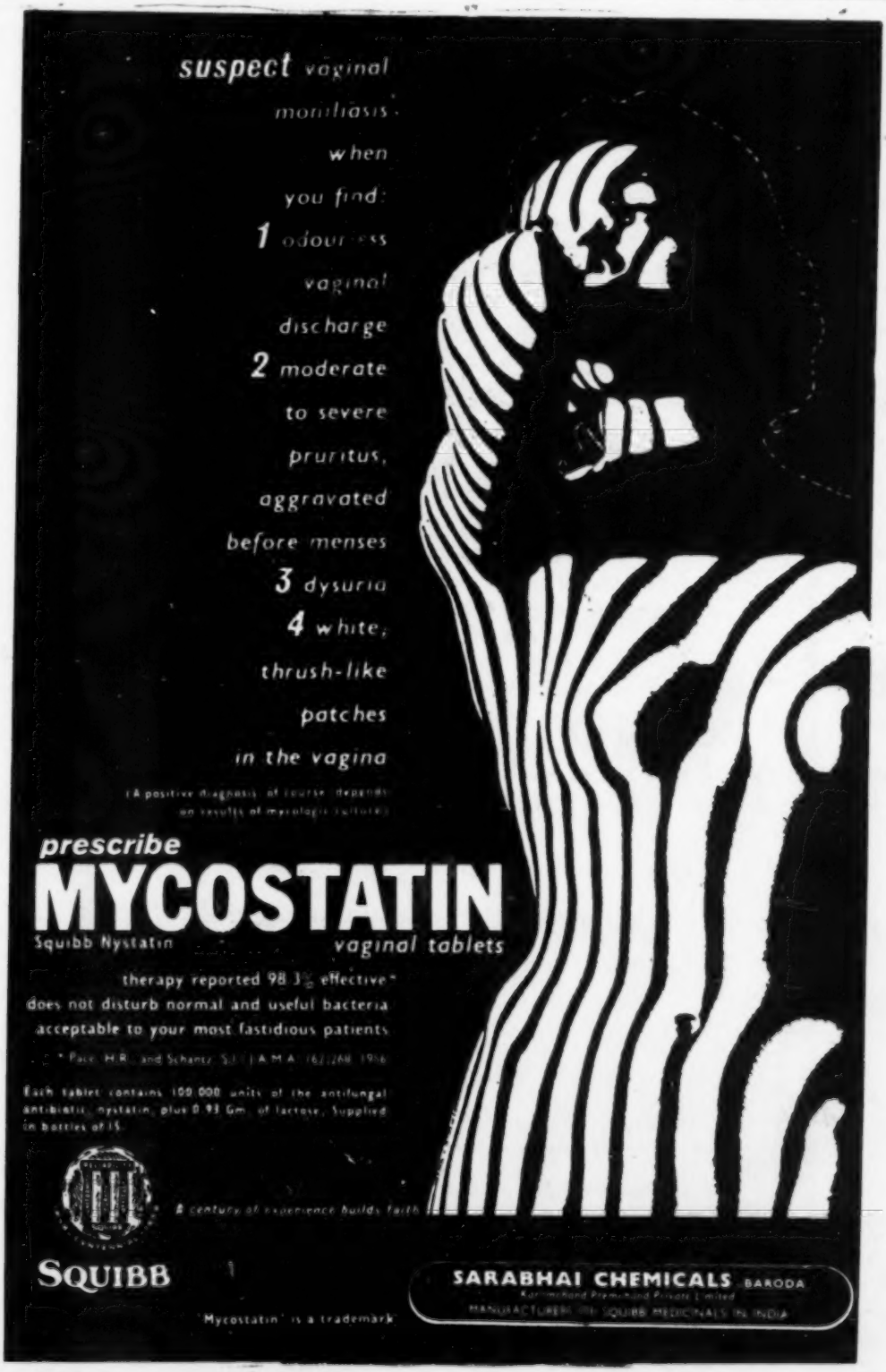
STOPS SNEEZING, CONTROLS NASAL IRRITATION, RUNNING OF THE NOSE, HEAVINESS OF THE HEAD ETC. MAKES ONE FIT TO CONTINUE ONE'S WORK.

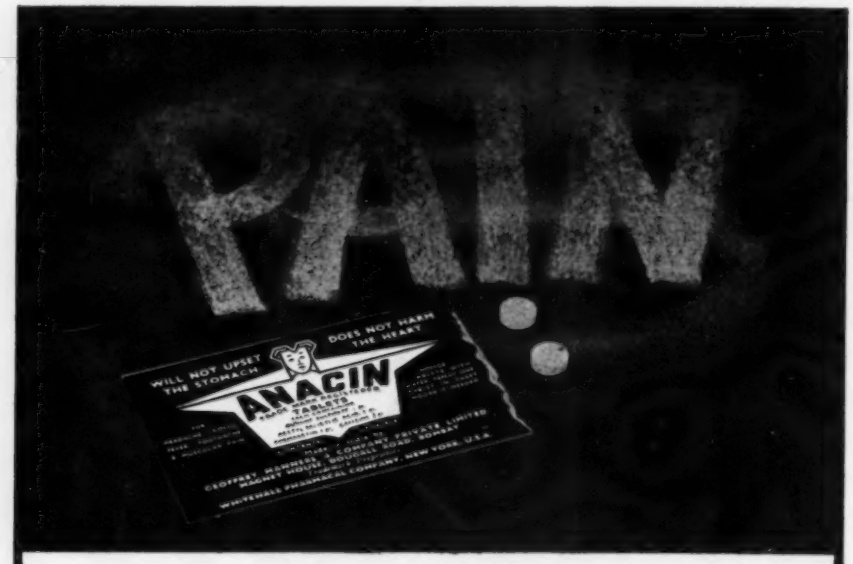
FREE FROM NARCOTICS 'ANTIHISTAMINICS' OR ANY HABIT-FORMING DRUGS. VERY WELL TOLERATED BY ADULTS AND CHILDREN.

●

Phytosynth Laboratories

P. B. No. 65, COCHIN-2.


suspect vaginal monilíasis when you find:
1 odourless vaginal discharge
2 moderate to severe pruritus, aggravated before menses
3 dysuria
4 white, thrush-like patches in the vagina
(A positive diagnosis, of course, depends on results of mycologic cultures)
prescribe
MYCOSTATIN
Squibb Nystatin vaginal tablets
therapy reported 98.3% effective*
does not disturb normal and useful bacteria
acceptable to your most fastidious patients
* Pace, H.R., and Schantz, S.J.: J.A.M.A. 167:268, 1958
Each tablet contains 100,000 units of the antifungal antibiotic, nystatin, plus 0.93 Gm. of lactose. Supplied in bottles of 15.
A century of experience builds faith
SQUIBB
SARABHAI CHEMICALS BARODA
MANUFACTURERS OF SQUIBB MEDICINALS IN INDIA
'Mycostatin' is a trademark



'ANACIN' alleviates the distress of pain and affords prompt relief from headache, toothache, muscular pain, cold and fever.

'ANACIN' is a non-toxic and clinically dependable preparation.

'ANACIN' provides a prolonged period of analgesia with a single dose of one or two tablets.

'ANACIN' is obtainable in packets of 2 tablets, containers of 32 tablets and bottles of 500 tablets

Composition : **Quinine 1/4 gr. Phenacetin 3 gr.**
Caffeine 1/4 gr. Acetylsalicylic Acid 3 gr.

Made in India by :
GEOFFREY MANNERS & COMPANY PRIVATE LIMITED
Magnet House, Dougall Road, Bombay 1.
Trademark Proprietors :
WHITEHALL PHARMACAL COMPANY, NEW YORK, U.S.A.

1.34

Presenting

SAFLOXIN

'CIPLA'

AN EMULSION OF ESSENTIAL UNSATURATED FATTY ACIDS FOR PREVENTING & LOWERING OF HIGH CHOLESTEROL BLOOD LEVELS.

Research about the relationships between serum lipids and lipoproteins and atherosclerosis has shown that saturated fats (animal) contribute to hypercholesteremia and atherosclerosis when they are consumed in sizable amounts. On the other hand unsaturated fats—those obtained from certain vegetables and fish oils—appear to have a protective action in that they reduce cholesterol levels even in the presence of saturated fats in the diet.

Safloxin is a palatable emulsion of Safflower Oil and some vitamins for administration in all cases of hypercholesterolemia, arteriosclerosis and myocardial infarction.

Safloxin provides the necessary calorie value, assures against loss of weight and has the beneficial effect of preventing or reducing high serum cholesterol level to ward against atherosclerosis.

PRODUCT OF Cipla BOMBAY-8.

AVAILABLE IN BOTTLES OF 1 LB.

Messrs. Advani Private Ltd.
3D, Garstin Place, Calcutta-1.

RELIEF

FROM PREGNANCY NAUSEA AND VOMITING

WITH

KATEMESIN

CONTAINING

PER TABLET		PER AMP. OF 1 cc.	
Pyridoxine HCl.	30 mg.	Pyridoxine HCl.	100 mg.
Niacinamide	15 ,,	Thiamine Mononitrate	100 ,,
Thiamine HCl.	3 ,,	Benzyl Alcohol	20 ,,
Phenobarbital Sodium	9 ,,	Distilled water Q.S.	1 cc.
Bottle of 20.		Boxes of 3 & 6 Ampoules.	

RELIEVES nausea and vomiting in morning sickness and hyperemesis gravidarum.
INCREASES appetite and restores white blood cell count to normal.
EXERTS a mild sedative effect.

DOSE : 2 tablets daily. 1 cc. or 2 cc. daily Intramuscularly.

Particulars from:

RAPTAKOS BRETT & CO., PRIVATE LTD., WORLI, BOMBAY.

in Tuberculosis

SYRUP

OPIZYD

COMPOUND

EARLY RETURN TO NORMAL ACTIVITIES

COMPOSITION

Each 28 c. c. (fl. oz.) Contains :

Isonicotinic Acid Hydrazide	500 mg.
Ferrous Gluconate	300 mg.
Calcium Gluconate	250 mg.
Calcium Glycerophosphate	62.5 mg.
Vitamin A	5,000 I.U.
Vitamin D	1,500 I.U.
Vitamin C	100 mg.
Vitamin B_1	5 mg.
Vitamin B_2	1 mg.
Nicotinamide	20 mg.
Syrup	q. s.

Highly Palatable

OPIL

ORIENTAL PHARMACEUTICAL INDUSTRIES LTD.

64-66, Tulsi Pipe-Road, Mahim, BOMBAY 16.

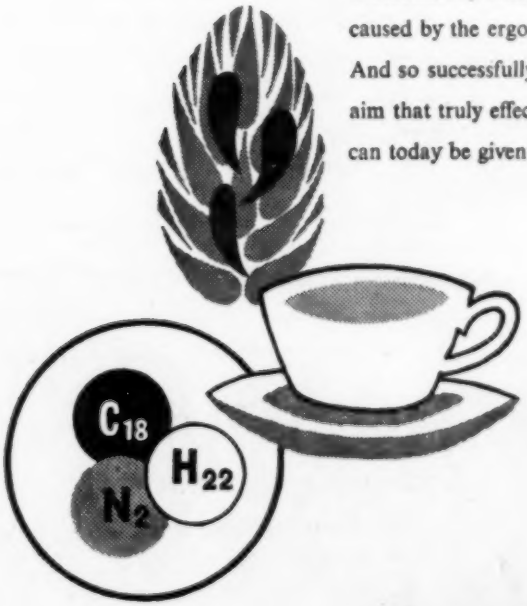
today's new

MASTER PLAN

against

migraine

The prescribing of 'Migril' makes possible at last a planned attack upon the three predominant symptoms of migraine. Ergotamine is present at strength in 'Migril' for its specific effect upon the characteristic headache and ocular disturbances. Caffeine is present too, since it acts as a synergist to ergotamine. Frequently, however, ergotamine tends to evoke nausea and vomiting on its own account and can therefore worsen these aspects of the condition. For this reason, the potent, rapidly acting anti-emetic cyclizine ('Marzine') is also included in 'Migril'— to overcome any tendency to nausea or vomiting, whether caused by the ergotamine or by the migraine itself. And so successfully does cyclizine achieve this aim that truly effective oral doses of ergotamine can today be given— by means of 'Migril'.



Each tablet contains ergotamine tartrate 2 mg., caffeine (alkaloid) 100 mg., cyclizine hydrochloride 50 mg.

Packing

Tablets: 6 x 4 (catch covers)

'migril' BRAND

TABLETS OF ERGOTAMINE COMPOUND

BURROUGHS WELLCOME & CO. (INDIA) PRIVATE LTD.

P. O. BOX 290, BOMBAY

COUGH

'PHENSEDYL' IS A RATIONAL AND EFFECTIVE COUGH LINCTUS FOR THE PROMPT RELIEF OF UNPRODUCTIVE COUGH INCLUDING

* REFRACTORY POST-INFLUENZAL TYPES
* ALLERGIC AND ASTHMATIC COUGHS
* BRONCHITIS AND WHOOPING COUGH

'PHENSEDYL'
trade mark brand
PROMETHAZINE COUGH LINCTUS

MANUFACTURED BY MAY & BAKER LTD

PA 450-141

Distributed by: MAY & BAKER (INDIA) PRIVATE LTD · BOMBAY · CALCUTTA · GAUHATI · MADRAS · NEW DELHI

A powerful Oral Therapy for Macrocytic Anaemias

COMPOSITION

Each tablet contains:	
Vitamin B_{12} B.P.	*10 mcg.*
Purified Intrinsic Factor Conc.	*25 mg.*
Folic Acid B.P.	*2 mg.*
Vitamin C B.P.	*100 mg.*

SYLOMIN TABLETS

YOU CAN PUT YOUR CONFIDENCE IN Alembic

ALEMBIC CHEMICAL WORKS CO. LTD., BARODA-3.

MP.58.4A

Serpasil

antihypertensive
bradycardiac
tranquillizer

new indications

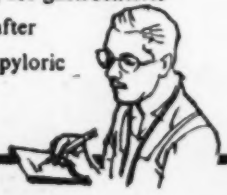
1. anxiety, tension, nervousness, hyper-emotionalism.
2. neuropsychiatric conditions, such as schizophrenia, paranoia, manic states.
3. gynecologic disorders associated with anxiety and tension.
4. dermatologic conditions in which psychogenic factors are involved.

CIBA

3 Famous Products

—prescribed by the medical profession

Eledon The dependable acid buttermilk of constant composition which is ideal for feeding of premature and marasmic infants, for gastroenteric disorders, dysentry, convalescence after typhoid, dystrophy, skin disorders, pyloric stenosis and liver diseases.



LACTOGEN A spray dried full cream milk modified so that on reconstitution with water it closely resembles human milk in percentage composition. Fortified by the addition of Vitamins A and D and organic iron, entirely free of pathogens and of excellent digestibility.

NESTOMALT A complete food-drink. Full cream milk with the nutritive extracts of malted wheat and barley and fortified by the addition of Vitamin B1. Can be given to young, old and convalescents because it is easily digestible. Ideal during and after pregnancy.

Remember—NESTLÉ is good—
VERY good !

NCA/P/8

A potent haematinic compound providing comprehensive therapy for all nutritional anaemias.

Packings:
Bottles of 30 and 100 capsules
Tins of 500 capsules

A product of
TEDDINGTON CHEMICAL FACTORY PRIVATE LTD.
Suren Road, Andheri, Bombay

Sole Distributors:
W. T. SUREN & CO. PRIVATE
P. O. Box 229, Bombay 1

Branches
Madras P. O. Box 1286
Calcutta P. O. Box 672

CTF

T.C.F. hæmatinic liver capsules

including Folic Acid and Vitamin B_{12}

Keys to good health...

"...good nutrition is important for the maintenance of optimum health in all normal individuals .... Good nutrition is essential for normal organ development and function; for normal growth and maintenance; for optimum working efficiency; for maximal resistance to infection ... and in the restoration of good health...."[1]

Raviplex, in a well-balanced formulation, supplies the essential vitamins required to maintain healthy physical and psychologic functioning. It is ideal both for prevention and cure of deficiency conditions because of its high vitamin content.

RAVIPLEX*

brand of multivitamins

A concentrated high potency, multivitamin formulation

LIQUID

Deliciously flavoured; available in pilferproof bottles of 2 oz., 4 oz. and 1 lb.

TABLETS

Coated tablets available in pilferproof bottles of 25, 100 and 1000.

1. Pollack, H., and Halpern, S.L.: Therapeutic Nutrition, publication 234, N.A.C. Washington, D.C., 1952.

RAVISON

POTENCY · PREDICTABILITY · PURITY

RAVISON DRUGS PRIVATE LIMITED

Post Bag 10010, BOMBAY 1

* Trademark

LEUKORA

for GYNÆCOLOGICAL DISORDERS

Composed of :—
Each fluid ounce of LEUKORA contains :

EXTRACTS FROM :—

Caesalpinia Sappan wood (Eng-Sappan wood)	40 mgs.
Acacia Catechu (Khadir)	40 mgs.
Adhatoda Vasica (Vasak)	40 mgs.
Sida Cordifolia (Berela)	40 mgs.
Ichnocarpus Frutescens (Shyamalata)	40 mgs.
Hemidesmus Indica (Anantamul)	40 mgs.
Mangifera Indica (Mango Seed)	40 mgs.
Berberis Asiatica (Daruharidra)	40 mgs.
Swertia Chirata (Chirata)	40 mgs.
Cumminum Cyminum (Jira)	40 mgs.
Aegle Marmelos (Bael)	40 mgs.
Ferri Sulph.	40 mgs.
Extractum Berberidis (Rashanjan, Rasaut)	40 mgs.
Syrup & Flavouring agent	q.s.

For further particulars write to :—

ADCCO LIMITED

29/3A, CHETLA CENTRAL ROAD,
CALCUTTA-27.

'DETTOL'
Regd.

guards against infection

- **Disinfection of instruments**
- **Washing and disinfecting hands**
- **Pre-operative skin disinfection—and wherever there is danger of infection**

Free Write for "Dettol Products" Booklet

Atlantis (East) Limited
(Incorporated in England)
P. O. Box 9009 Calcutta 16

DTM-1

AEL 1301

VITAMIN MINERAL CAPSULE

Composition

Each capsule contains

Vitamin A	2,000	I.U.
,, D	500	I.U.
,, B_1	5.0	mg.
,, B_2	2.0	mg.
,, B_6	1.0	mg.
,, B_{12}	2.0	mcg.
,, C	20.0	mg.
Folic Acid	0.25	mg.
Nicotinamide	10.0	mg.

POLYVITIN

Calcium Pantothenate	2.5	mg.
Calcium Phosphate	50.0	mg.
Ferrous Sulph. (Exic.)	20.0	mg.
Manganese	0.03	mg.
Iodine	0.02	mg.
Magnesium	0.2	mg.
Cobalt	0.001	mg.
Copper	0.001	mg.

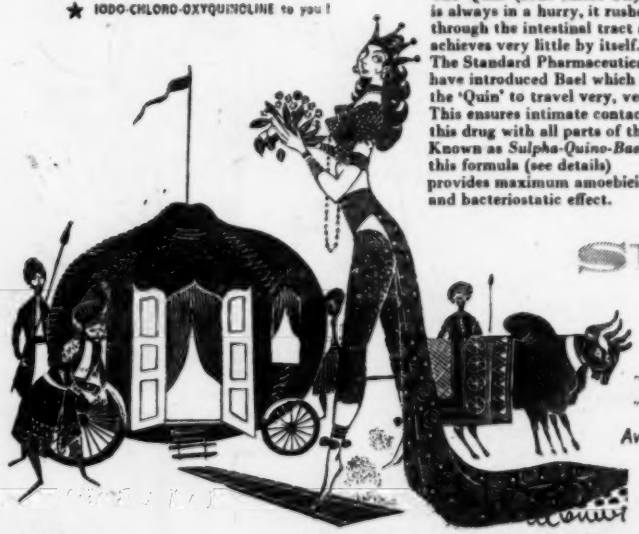
Phials of 25 and 50 capsules.

STANDARD PHARMACEUTICAL WORKS LTD.
67, Dr. Suresh Sarkar Road, Calcutta-14

Bring the Bael to carry the Quin*

★ IODO-CHLORO-OXYQUINOLINE to you !

The picture tells a story—the story of a new formula for the effective treatment of amoebic and bacillary dysenteries. The 'Quin' (Iodo-chloro-Oxyquinoline) is always in a hurry, it rushes through the intestinal tract and achieves very little by itself. The Standard Pharmaceutical Works have introduced Bael which forces the 'Quin' to travel very, very slowly. This ensures intimate contact of this drug with all parts of the gut. Known as *Sulpha-Quino-Bael*, this formula (see details) provides maximum amoebicidal and bacteriostatic effect.



Each spoonful measure, as supplied inside each carton, contains

Iodo-chloro-oxyquinoline	0.2 gm.
Sulphadiazine	0.033 gm.
Sulphathiazole	0.1 gm.
Sulphaguanidine	0.067 gm.
Baked Bael powder	1.1 gm.
Isaphgul powder	0.2 gm.
Magnesium Carbonate (Pond)	0.2 gm.

SULPHA QUINO BAEL

Available both in Granules & Powder

SQBI-58

Standard Pharmaceutical Works Ltd. Calcutta-14

...no fury like a woman scorned

Just a simple housewife ... yet her wishes are of prime importance to us. We know better than to scorn her opinions, ideas, suggestions—for she knows best the needs and requirements of the home.

To find out *just what she wants*, we carry out marketing research surveys all over the country. Thus, it is the housewife who sets many of the standards that Hindustan Lever products must measure up to.

To ensure that these standards are rigidly maintained, quality is checked and controlled at every stage of manufacture. In this way, we are able to supply your home with the quality products that you need.

HINDUSTAN LEVER SERVES THE HOME

HLL 15-X52

ENTERO-QUINOL

Iodochloroxyquinoline Tablets

For

Amoebic Dysentery

and other

Intestinal Disorders

★

When anaemia is really severe

TONOFERON

Colloidal Iron—Folic Acid - Vitamin B_{12}

ELIXIR

Raises Haemoglobin concentration very quickly

East India Pharmaceutical Works Ltd.

CALCUTTA—26.

Journal of the Indian Medical Association

VOLUME 31 NUMBER 8 — PUBLISHED TWICE A MONTH — EDITOR—P. K. GUHA, M.B., M.R.C.S. (ENG.), D.O.M.S. (LOND.) — CALCUTTA OCTOBER 16, 1958

ORIGINAL ARTICLES

CARCINOMA OF THE ORAL CAVITY†

P. N. WAHI, M.D., M.R.C.P. (LOND.), F.N.I., *Professor and Head of the Department of Pathology*

S. N. SAXENA, M.B.B.S., *Research Fellow*

AND

PASHPATI NATH WAHI, M.D.,* *Lecturer in Pathology*

From the Department of Pathology, S. N. Medical College, Agra

This report concerns a critical analysis of intra-oral carcinomas in Western Districts of Uttar Pradesh. Cancer of the oral cavity is a major problem in this area. It is quantitatively probably less important than cancer of the cervix. However from other aspects its importance is out of proportion to its numbers. Its apparent association with distinct geographical and environmental factors makes aetiological studies especially attractive even though difficult.

In this country, oral cancers show a remarkably high incidence in Andhra State, coastal districts of Southern India and Western Uttar Pradesh. This preponderance has been causally correlated to distinct environment and local habits of the population. The "Chutta" cancer in Andhra is now established as due to the prevalence of a peculiar habit of the native population of smoking cigar with the lighted end inside the mouth (Nath and Grewal, 1935) (Figs. 1 and 2, *vide* Plate). Since a history of tobacco chewing was associated in the majority of cases of oral cancers treated at the Radium Institute of the S. N. Hospital, Agra, it is felt that tobacco carcinogens aided with possible carcinogens in the lime and the mechanical irritation of constant chewing and betel nuts, could probably be playing an important aetiologic role in the production of oral cancers in this area. This high frequency of oral cancer in a comparatively small area of the country is an example of usages and environment playing a decisive role in the production of certain types of malignant tumours. No better example of the influence of geography in pathology could be desired for.

MATERIALS AND METHODS

For this study, all cases of intra-oral carcinomas attending the Radium Institute in S. N. Hospital during the period January 1948 to August 1956 were taken. From a total of 11,600 biopsies, 2,800 were of malignant tumours. Intra-oral carcinomas constituted 750 cases. The data presented are based on a personal study of clinical manifestation, habit, diet, environment, etc., of each case. This has obviated the deficiencies usually present in such reports based on old records.

Based on the size of lesion and presence or otherwise of metastasis, the cases were clinically graded as follows:

Grade I—Where the lesion measured less than 1·5 cm. in diameter and metastasis was absent.

Grade II—Where the lesion measured more than 1·5 cm. in diameter but still the metastasis was absent.

† This enquiry was financed by a grant from the State Research Council.

* Present address: Professor of Pathology, Medical College, Jabalpur.

Grade III—This comprised of cases with lesion measuring more than 1·5 cm. and had also unilateral metastasis in the neck.

Grade IV—This included cases with extensive bilateral metastasis.

The biopsies were always taken from the most suspicious area by the Officer in Charge Radium Institute. The tissue was fixed as a routine in formol saline. The sections were stained with hematoxylin and eosin. Some sections were stained with phosphotungstic acid hematoxylin.

A tightly rolled cotton applicatory or wooden spatula was rubbed over the lesion, and then smeared uniformly over numbered clean glass slides. These were immediately transferred in the fixed jar containing equal parts of 95 per cent alcohol and ether. A minimum of 1/2 hour fixation was allowed to assure adequate fixing. The slides were then stained by Papanicolaou's technique (Papanicolaou and Traut, 1943).

Observations

FREQUENCY :

Adequate information is available from biopsies and autopsies on the frequency of oral carcinoma relative to other kinds of cancers. Table 1 gives the relative frequency of cancer of the oral cavity as compared to the malignant tumours examined during the same period in the surgical pathology laboratory.

Similar comparison between the incidence of oral carcinomas in Agra, Andhra, Bombay, London and New York shows striking differences (Table 2).

Table 1—Showing Analysis of 2,800 Cases of Malignant Tumours according to Sites along with Comparative Figures for Bombay, London and New York (Khanolkar, 1950).

Malignant tumour site	Agra (1948-56)		Bombay (T.M.H.) (1941-45)	London (C.H.) (1938-39)	New York (M.H.) (1917-29)
	No. of cases	Percentage	Percentage	Percentage	Percentage
I. CARCINOMA					
Intra-oral	750	26·79	35·9	6·7	16·0
Female genital system ...	854	30·5	—	—	—
Uterus	19	0·67	0·6	2·1	1·4
Cervix	723	25·8	10·8	6·3	12·9
Male genital system ...	192	6·86	—	—	—
Penis	97	3·45	1·5	0·4	0·6
Gastrointestinal system ...	75	2·68	4·8	25·0	7·3
Breast	112	4·0	7·4	16·6	16·2
Skin	130	4·64	2·6	8·0	14·8
Miscellaneous	397	14·19	10·9	25·8	16·4
Total	2510	89·64	92·8	97·5	91·1
II. SARCOMA					
Bone	50	1·79	1·1	0·9	2·9
Other	240	8·57	6·1	1·6	6·0
Total	290	10·36	7·2	2·5	8·9

Table 2—Showing Relative Frequency of Oral Carcinomas

	S. N. Hospital, Agra (1948-56)	Andhra Medical College Hospital (1951-55)	Bombay (T.M.H.) (1941-45)	London (C.H.) (1938-39)	New York (M.H.) (1917-29)
Total No. of malignant tumours	2800	2263	6077	15,068	16,565
Incidence of oral carcinomas percentage	26·79	11·3	35·9	6·7	16·0

If it is assumed that statistical data and conditions of the above analysis were identical, it will be noticed that there is a greater frequency of intra-oral cancers in Agra. The Tata Memorial Hospital, Bombay, is a cancer hospital and attracts patients from all over the country. The figures cannot be taken as denoting cases in Bombay area alone.

The analysis of cases (Table 3) from the point of view of the district residencies shows that majority of cases came from the western districts. Of course it has to be borne in mind that Agra Hospital will naturally attract more cases of the western part of Uttar Pradesh.

TABLE 3—SHOWING ANALYSIS OF ORAL CARCINOMA ACCORDING TO DISTRICTS OF UTTAR PRADESH

Name of the district	No. of cases	Per cent prevalence
Mainpuri	315	42·0
Agra	123	16·4
Kanpur	69	9·2
Aligarh	63	8·4
Etah	31	4·05
Etawah	30	4·0
Farukhabad	23	3·07
Badayun	18	2·4
Mathura	15	2·0
Benaras	12	1·64
Bijnore	12	1·64
Lucknow	9	1·2
Moradabad	6	0·8
Hardoi	6	0·8
Pilibhit	3	0·4
Outside U.P.	15	2·0
Total	750	100·0

SITE OF CANCER IN THE ORAL CAVITY :

Table 4 gives the distribution of oral tumours at Agra according to the site of lesion in the oral cavity.

TABLE 4—SHOWING DISTRIBUTION OF ORAL CARCINOMA ACCORDING TO THE SITE IN THE ORAL CAVITY

Site of lesion	No. of cases	Per cent prevalence
Buccal mucosa	402	53·6
Tongue		
Anterior	152	20·26
Posterior	84	11·2
Palate	43	5·86
Gums	32	4·18
Lips	27	3·6
Tonsils	10	1·30
Total	750	100·0

A comparison of the intra-oral sites of cancer at Agra, Andhra, Bombay and New York (Fig. 3) yields interesting features which may be summarised as follows.

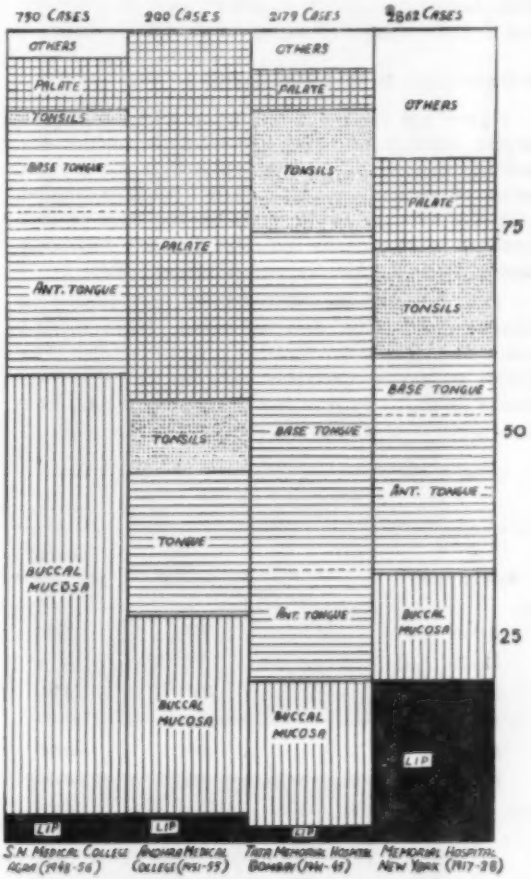


FIG. 3—SHOWING COMPARISON OF THE INTRA-ORAL SITES OF CANCER AT AGRA, ANDHRA, BOMBAY AND NEW YORK.

1. Cancer of buccal mucosa constitutes an impressive group in Uttar Pradesh, but for hardly one eighth in Bombay, Andhra and New York.

2. Cancer of the tongue accounts for almost 60 per cent at Tata Memorial Hospital, Bombay, but is only a third as common in Agra, New York and Andhra.

3. Cancer of the palate is most frequently met with in Andhra but is relatively rare in Agra, Pombay and New York.

4. Cancer of the lip accounts for about 20 per cent of oral cancers in New York whereas it forms a proportionately smaller number in Agra, Bombay and Andhra.

The relative proneness of buccal mucosa in this area is probably associated with the habit of chewing tobacco and of keeping the quid in contact with the mucous membrane of the cheek for hours. Similarly the frequency of palate as the most favourite site in Andhra cases is probably due to the peculiar smoking habit of the people.

DISTRIBUTION IN THE POPULATION :

Age—Oral carcinoma occurs at all ages but the largest number of cases usually falls in the 4th and 5th decades. The average age in the present series of patients is 42·4 years. This compared with the average of 59 years in the case of oral tumours in Europeans indicates an early incidence among Indians (Martin and Pflueger, 1935).

The average age of cases of oral cancer in Kini's series (Kini and Subbarao, 1937) is 42·5 years and is similar to that in our series. Orr (1933) suggested that this early incidence of oral cancer is probably due to chewing betel nut, lime and tobacco at an early age amongst Indians.

TABLE 5—SHOWING THE INCIDENCE OF ORAL CANCER ACCORDING TO AGE

Age in years	No. of cases	Per cent prevalence
Below 20	Nil	Nil
21—30	73	9·74
31—40	262	34·94
41—50	251	33·4
51—60	127	16·94
61 and above	37	5·04

Sex—This cancer is commoner in men than in women, the actual case distribution of 508 : 242 gives a ratio of approximately 2 : 1. In Martin and Pflueger's (1935) series of 99 cases of cancer of the cheek the sex ratio was 9 : 1. This relatively higher incidence in men is probably related to more usage of tobacco in men than in women. The marked preponderance of palatal cancer in women in Andhra, stresses the operation of occupational factor, for the reversed cigar smoking is commonly practised by women.

Religion—Oral cancer is more frequent amongst Hindus than amongst Muslims. Table 6, shows the analysis of cases of oral cancer according to religion, sex and site.

This difference between the Hindus and Muslims may be explained on population basis, and the habits of chewing betel leaf with tobacco and lime with retaining of cud between the gums and the cheek for several hours and in some cases during the whole night as well. An enquiry from tobacco dealers revealed that poor people for reasons of economy keep the cud much longer than well-to-do persons who can afford to change the same.

GENERAL CLINICAL FEATURES :

Symptoms—Increased salivation, local pain, swelling or ulcer in the mouth and glandular swelling in the neck owing to metastasis were by far the most common complaints. Among the less common manifestations were inability to open the mouth, difficulty in deglutition and burning sensation in the mouth. A history of pain referred to the eye, ear and face was obtained in 12·8 per cent of cases. A summary of the presenting complaints is given in Table 7.

TABLE 6—SHOWING ANALYSIS OF ORAL CANCER ACCORDING TO RELIGION, SEX AND SITE

Site of cancer	Total number of cases	HINDUS				MUSLIMS			
		Male		Female		Male		Female	
		No. of cases	Percentage	No. of cases	Percentage	No. of cases	Percentage	No. of cases	Percentage
Buccal mucosa ...	402	172	43·3	93	23·1	92	22·9	45	10·7
Tongue	236	121	51·27	30	12·7	43	18·2	42	17·8
Palate	43	20	46·51	4	9·3	12	27·9	7	17·29
Gums	32	17	53·1	4	12·5	7	21·9	4	12·5
Lips	27	15	55·5	2	7·5	5	18·5	5	18·5
Tonsil	10	3	30·0	3	30·0	1	10·0	3	30·0
Total	750	348	46·4	136	18·13	160	21·30	106	14·13

Fig 1—Showing method of smoking cigar with the lighted end inside the mouth.

Fig. 2—Advanced cancer of the upper lip.

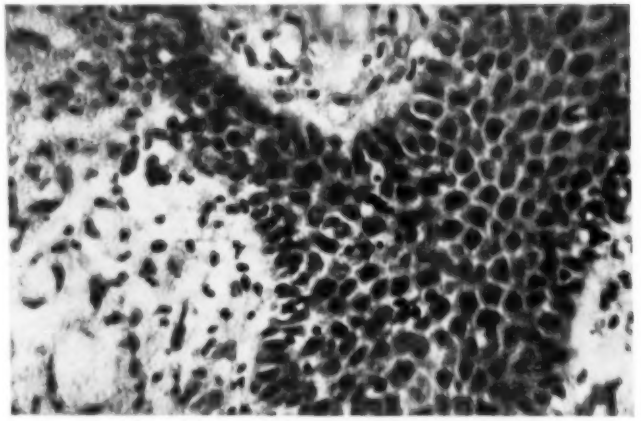


Fig. 4—Intra-epithelial epidermoid carcinoma. Haematoxylin and Eosin × 430.

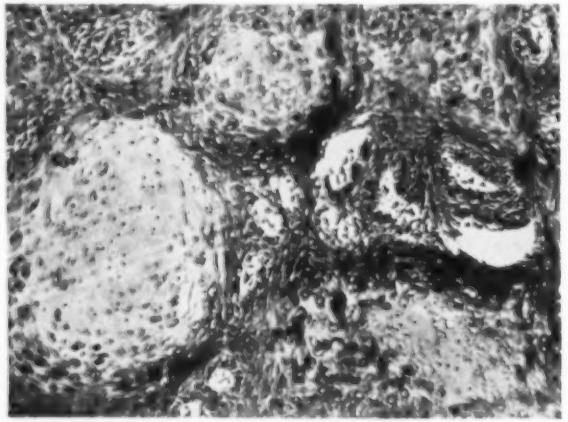


Fig. 5—Epidermoid carcinoma Grade I. Haematoxylin and Eosin × 100.

Fig. 6—Epidermoid carcinoma Grade II. Haematoxylin and Eosin × 100.

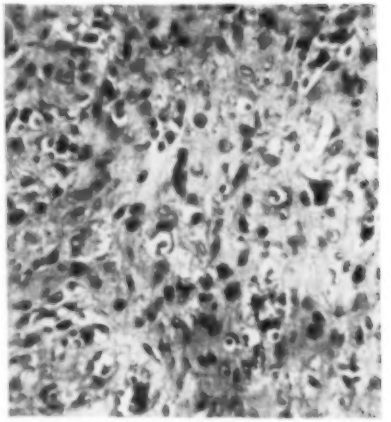


Fig. 7—Epidermoid carcinoma Grade III. Haematoxylin and Eosin × 100.

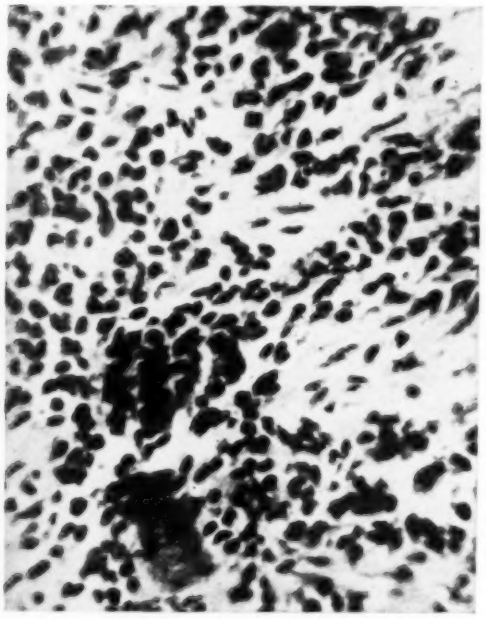


Fig. 8—Anaplastic carcinoma. Haematoxylin and Eosin ×430.

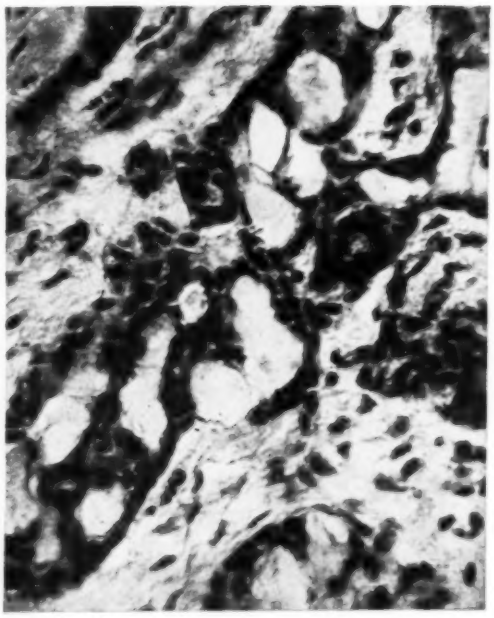


Fig. 9—Adenocarcinoma of the palate. Haematoxylin and Eosin ×430.

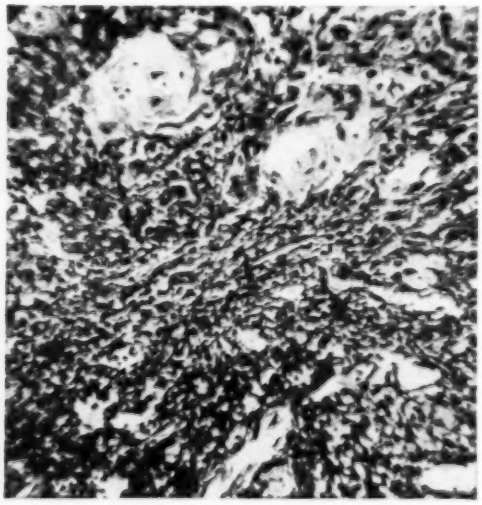


Fig. 10—Lymphoepithelioma of the tonsil. Haematoxylin and Eosin ×215.

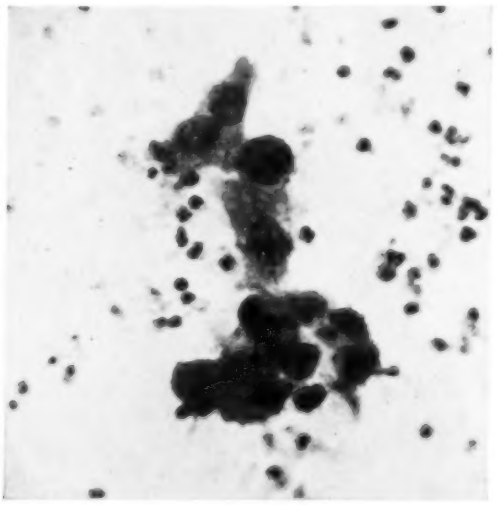


Fig. 11—Group of undifferentiated malignant cells in oral smear. Papanicolaou's technique ×970.

ENGRAVED & PRINTED BY REPRODUCTION SYNDICATE, CALCUTTA 6

TABLE 7—SHOWING PRESENTING SYMPTOMS IN 750 CASES OF ORAL CARCINOMA

Presenting symptoms	No. of cases	Per cent prevalence
Pain in the mouth	432	57·6
Increased salivation	384	51·2
Burning sensation in the mouth	340	45·3
Inability to open the mouth partially or completely ...	320	42·7
Referred pain in the eye, forehead, ear and face	96	12·8
Difficulty in deglutition and speaking	72	9·6
Ulceration or growth	690	92·0
Enlarged lymph nodes in the neck	504	67·2
Nodule formation with induration	38	5·07
Leukoplakic patch	22	2·9

GROSS PATHOLOGICAL ANATOMY :

The tumours assumed many forms including ulcerative, nodular, massive, cauliflower-like, proliferative diffuse and leukoplakic patch. The commonest are those with ulcer and cauliflower-like growths. The basic tumour colour ranged from pale greyish in nodular forms to haemorrhagic red in ulcerative lesions. 22 out of a total of 750 lesions presented as a thickened, irregular, leukoplakic patch. Majority of the more advanced growths showed a tendency to superficial ulceration and bleeding on touch or pressure. Simple nodule was observed in 33 cases.

TABLE 8—SHOWING ANALYSIS OF GROSS PATHOLOGICAL FINDINGS IN 750 CASES OF ORAL CARCINOMA

Type of gross lesion	No. of cases	Per cent prevalence
Cauliflower-like growth ...	324	43·20
Ulcer	276	36·80
Proliferative diffuse growth ...	90	12·03
Nodule	38	5·07
Leukoplakic patch	22	2·9

METASTASIS :

The involvement of regional lymph nodes was seen in 504 cases among a total of 750 oral cancers. About two-thirds of cases showed unilateral metastasis, the remainder showed bilateral involvement. Submandibular glands and jugular lymph-nodes were the principal recipients as seen in Table 9. In all instances of clinically advanced cases in grades III and IV, metastases were present. The important fact, however, is that these metastases were seen even in histologically early cases.

TABLE 9—SHOWING SITES OF UNILATERAL METASTASIS IN 342 CASES OF ORAL TUMOURS

Site	No. of cases	Per cent prevalence
Submandibular lymph nodes ...	133	18·13
Jugular lymph nodes	128	17·07
Pre auricular lymph nodes ...	11	1·47
Submandibular and jugular lymph nodes	67	8·93
Total	342	45·6

When the site of cancer was correlated with incidence of metastasis, it appeared that cancer of the gums and cheeks are more prone to spread to the regional lymph nodes than those at other sites.

HISTOPATHOLOGY :

In the present study epidermoid carcinoma formed 88·8 per cent of cases. In five cases, adenocarcinoma was identified forming 0·67 per cent out of 750 cases. Lympho-epithelioma was quite infrequently seen. It was diagnosed only in 3 cases. Anaplastic carcinoma occurred in 4 cases. The diagnosis of atypical epithelial hyperplasia was given in 72 cases.

TABLE 10—SHOWING ANALYSIS OF ORAL CARCINOMA ACCORDING TO HISTOLOGICAL DIAGNOSIS

Histological diagnosis	No. of cases	Per cent prevalence
Epidermoid carcinoma ...	666	88·8
Intra-epithelial (Fig. 4, *vide* Plate)	25	3·34
Grade I (Fig. 5, *vide* Plate)	174	23·2
Grade II (Fig. 6, *vide* Plate))	292	38·93
Grade III (Fig. 7, *vide* Plate)	78	10·4
Insufficient for grading ...	97	12·93
Anaplastic carcinoma (Fig. 8, *vide* Plate)	4	0·53
Adenocarcinoma (Fig. 9, *vide* Plate)	5	0·67
Lympho-epithelioma (Fig. 10, *vide* Plate)	3	0·4
Atypical epithelial hyperplasia ...	72	9·6

This reveals an interesting finding of a great preponderance of epidermoid carcinomas but of comparatively low malignancy. Only 10 per cent of cases belonged to Grade III. Intra-epithelial carcinoma was seen in only 25 cases. This indicates that early diagnosis of carcinoma is possible in but a few cases.

Metastasis—The presence or absence of metastasis was judged mostly on clinical appraisal only. Added histological evidence was however available where suspicious lymph nodes were also submitted to histological examination. Attempt at correlation of metastasis to the histological diagnosis forms an interesting study. It will be noticed from Table 11 that the incidence of metastasis increased with the degree of malignancy. From this table it is also seen that adenocarcinoma and lympho-epithelioma metastasise late as none of our cases showed any secondaries. However the number of cases are small and hence warrant no conclusions.

TABLE 11—SHOWING INCIDENCE OF METASTASIS IN ORAL CARCINOMA

Histological diagnosis	Total No. of cases	No. of cases with metastasis	Per cent prevalence
Epidermoid carcinoma			
Intra-epithelial ...	25	Nil	Nil
Grade I ...	174	122	70·1
Grade II ...	292	244	80·1
Grade III ...	78	68	87·2
Insufficient for grading or with radiation reaction ...	97	66	68·1
Anaplastic carcinoma ...	4	4	100·0
Adenocarcinoma ...	5	Nil	Nil
Lympho-epithelioma ...	3	Nil	Nil

Information about metastasis was not available in 72 cases.

Another interesting feature that has been brought out is that a high percentage of cases of histological grade I had metastasised, showing the occurrence of early metastasis in oral carcinoma. Table 12 further highlights the absence of correlation between the clinical and histological gradings.

CYTOLOGICAL STUDIES :

Cells are of different shapes and sizes, and a positive diagnosis of malignancy depends upon the presence of malignant cells in small or large densely packed groups. The cells are divided into two groups, undifferentiated (Fig. 11, *vide* Plate) and differentiated (Fig. 12, *vide* Plate), taking the cell membranes as the criterion. In the undifferentiated cells, the cell membranes are not recognised especially in the crowded part of the group. Even in single cells, the cytoplasm is an indistinct background with absence of cell borders. Differentiated cells exhibit well-defined cytoplasm and distinct cell borders. The nuclei are large and often displace most of the cytoplasm. Hyperchromasia, anisocytosis and anisonucleosis are striking features. The chromatin occurs as either finely granular or in densely coarse clumps. The large nucleoli form a conspicuous feature. Other cells intermingled with the cancer cells are numerous leucocytes, histiocytes, and red blood cells.

In this study 115 clinically diagnosed cases of oral cancer were examined. The diagnosis was confirmed by histiologic section in 95 cases.

TABLE 12—SHOWING CORRELATION OF GROSS PATHOLOGY TO CLINICAL AND HISTOLOGICAL GRADINGS

Type of gross lesion	No. of cases	CLINICAL STAGE				Atypical epithelial hyperplasia	HISTOLOGICAL DIAGNOSIS							
							Epidermoid carcinoma					Anaplastic carcinoma	Adenocarcinoma	Lympho-epithelioma
		I	II	III	IV		Intra-epithelial	Grade I	Grade II	Grade III	Insufficient for grading			
Ulcer ...	276	41	46	112	77	14	16	71	105	21	48	1	—	—
Nodule ...	38	38	—	—	—	12	3	11	3	—	7	—	2	—
Cauliflower-like growth ...	324	—	53	202	69	17	—	64	160	42	40	1	—	—
Diffuse proliferative growth	90	9	37	28	16	18	5	20	24	15	—	2	3	3
Leukoplakic patch ...	22	22	—	—	—	11	1	8	—	—	2	—	—	—
Total ...	750	110	136	342	162	72	25	174	292	78	97	4	5	3

TABLE 13—SHOWING ANALYSIS OF ORAL SMEARS

Total cases examined	115
Clinically diagnosed positive	115
Biopsy reported :	
Positive	95
Negative	20
Smears reported :	
Positive	91
Negative	24

Of 24 negative smears reported, 16 were proved negative by biopsy report. The remaining 8 were positive clinically and histologically.

Of 20 negative biopsies reported, 16 were proved also negative by smear, the remaining 4 cases were clinically positive.

From these studies, it is clear that the recognition of malignant cells in the smears from oral carcinoma is feasible. It is a simple, quick and an inexpensive method and can be repeated as often as necessary without any inconvenience to the patient. We feel that it is particularly adapted to the screening of a large number of patients of cancer. Cases so screened can then be submitted to histological examination.

AETIOLOGICAL FACTORS

ORAL HYGIENE :

In the present study it was noticed that majority of cases of oral cancer had poor oral hygiene with tartar over the teeth and advanced pyorrhoea. The results support the evidence that irritation caused by poor oral hygiene may be a predisposing factor. Dental trauma and irritation of mucosa during betel nut chewing appear to influence the incidence of oral cancers.

DIET AND NUTRITION :

The incidence of the disease bears a direct relationship to economic status. The dietetic history was enquired into with reference to caloric value, nature of proteins and spices. There was no marked difference in the incidence in vegetarians and non-vegetarians. However the greater majority of cases subsisted on a deficient diet and belonged to low economic status. Only 24 patients gave history of having suffered from syphilis in the past. Five per cent of cases had positive Kahn test. Most of these cases had cancer of the tongue.

ALCOHOL :

Except for possibly a minor role, alcohol does not appear to play any aetiologic role in oral cancers. In this study 28 cases (8·75 per cent) gave a positive history of taking alcohol over varying number of years. All the cases were also taking tobacco and had a very poor oral hygiene.

TOBACCO :

There can be little question that the ingredients of tobacco contain carcinogenic substances. When tested experimentally they have given rise to carcinomas of skin in mice (Wynder *et al*, 1953). An experimental study to see the carcinogenic action of alkaloids of Mainpuri tobacco on mice is in progress at the Indian Cancer Research Centre, Bombay.

Of very great interest is the finding, that no less than 263 patients out of 320 cases where accurate in formation regarding the use of tobacco was available, gave a history of tobacco chewing, and for reasons of economy, the quid containing tobacco, betel nut and lime is kept in contact with buccal mucosa for hours on end. Some keep the quid the whole night while sleeping. In view of the high evidence of tobacco chewing in oral cancer cases in this group (82·2 per cent), a detailed study was undertaken.

Two varieties of tobacco are available in this area, the *Pattiwala* and *Kurari* tobacco of Mainpuri.

74·1 per cent of cases gave a history of constant use of Mainpuri tobacco. They used tobacco with betel and betel nuts. These patients were questioned in detail as to the chewing or keeping the tobacco quid in the mouth between the cheek and the gum. 44 of 263 cases only chewed, while 219 chewed as well as kept the quid in the mouth for a variable period of time. This period to a great extent depended upon the economic status of the person. Well-to-do persons constantly changed the quid while poor people kept the same for long periods. It is this group which had much more carcinoma. There is no doubt that the constant exposure of the oral mucous membrane to the tobacco played an important role in the production of cancer. The majority of cases were using tobacco for a period of fifteen years or more before they developed the tumour.

Relationship of tobacco chewing and the site of the cancer in the oral cavity is shown in Table 14. This in addition brings out an interesting observation that those cases which used *Pattiwala* tobacco did not differ much from those who never chewed tobacco.

TABLE 14—SHOWING ANALYSIS OF LESION SITES ACCORDING TO THE TYPE OF TOBACCO USED

Site	Total cases	Using Mainpuri		Using *Pattiwala*		Using no tobacco	
		No. of cases	Percentage	No. of cases	Percentage	No. of cases	Percentage
Buccal mucosa	180	135	75·0	21	11·6	24	13·4
Tongue ...	88	57	64·8	9	10·2	22	25·0
Palate ...	20	14	70·0	3	15·0	3	15·0
Gums ...	15	11	73·4	2	13·3	2	13·3
Lips ...	12	7	58·3	2	16·7	3	25·0
Tonsil ...	5	2	40·0	Nil	Nil	3	60·0
Total ...	320	236	74·1	37	8·1	57	17·8

'Mainpuri' brand of tobacco—As a large proportion of the cases (74·1 per cent) gave history of using this type of tobacco, a detailed study was made with regard to the mode of production and the ingredients of this tobacco. In this connection a number of tobacco shop-keepers were questioned at Agra, Mainpuri and Shikohabad. The patients were also questioned so as to get a detailed and comprehensive information regarding this tobacco. Fig. 13 shows the numerical distribution of oral cancers in different tensils of Agra. Fig. 14 shows the numerical distribution of oral cancers in different tehsils of Mainpuri district. It was an interesting observation that all the cases from different tehsils were those who purchased tobacco from shops which sold 'Mainpuri' brand of tobacco. The number of cases also varied according to the number of shops selling this brand of tobacco. However, it may be pointed out that in the absence of general population data and study of the hospital attendance pattern, e.g., the likelihood that a patient from any one tehsil or district will be seen at the S. N. Hospital Agra, the importance of these maps is limited. These studies have been included in further work.

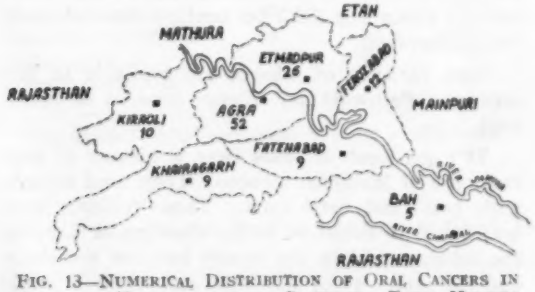


FIG. 13—NUMERICAL DISTRIBUTION OF ORAL CANCERS IN DIFFERENT TEHSILS OF AGRA DISTRICT. TOTAL NUMBER OF CASES 123/750.

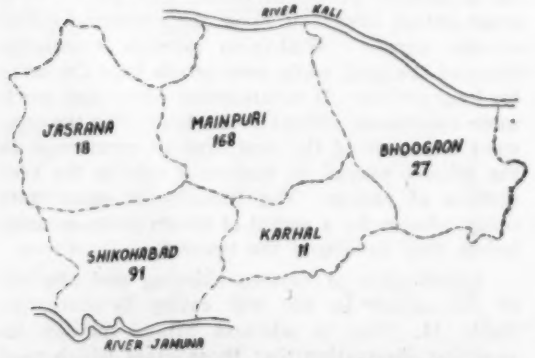


FIG. 14—NUMERICAL DISTRIBUTION OF ORAL CANCERS IN DIFFERENT TEHSILS OF MAINPURI DISTRICT. TOTAL NUMBER OF CASES 315/750.

This tobacco is prepared from the leaves which are grown in the Aliganj and Kaimganj tehsils of Farukhabad district. This type of tobacco is only chewed but not smoked. Lately these leaves have been grown in Joti, Jigna, Sarsaganj and Kachera villages of the Mainpur district also. The leaves obtained from these places are in comparatively lesser use.

The use of this type of tobacco dates as far back as 100 years, when it is said to have been started by a Rani in the then Mainpuri State. She used the tobacco leaves with finely cut betelnut and camphor. The method has now been greatly modified.

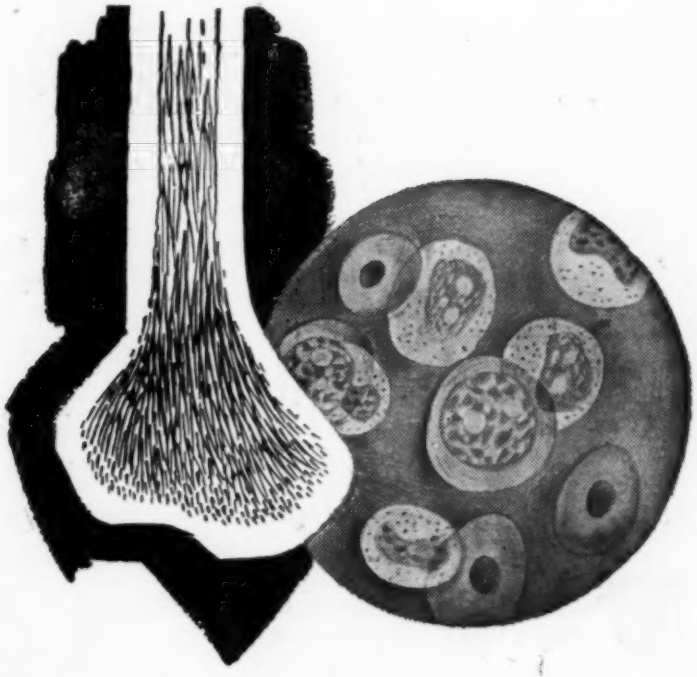
This tobacco is extensively manufactured in various parts of the Mainpuri district. It is also being manufactured these days in other districts of Uttar Pradesh, viz., Agra, Kanpur, Farukhabad, Aligarh, Etah, Etawah, Lucknow and Meerut. Lately its manufacture has also been started in Delhi, Calcutta and Bombay.

Ingredients and their proportion—The following ingredients are used in the preparation of this tobacco. The proportion of the various ingredients to be mixed with 1 ch. of the tobacco leaves is also given:

1. Tobacco leaves .. .. 1 ch.
2. Nuts (a) Finely cut and
   (b) Crushed .. .. 2 ch. each
3. Lime .. .. 1 ch.
4. Clove .. .. .. 1¼ ch.
5. *Illaichi* (cardamom) .. .. ¼ ch.
6. *Kewra* .. .. .. Few drops
7. Sandal powder .. .. Trace

ch. = chattack (16 ch. = 1 seer)

The tobacco prepared in different places differs in the quality of the various ingredients especially nuts otherwise the proportion is almost the same at all places.



NOW FREELY AVAILABLE

ILOBAN

For effective control of

Macrocytic anaemias with neurologic symptoms;

Hyperchromemia of pregnancy;

Diseases of the liver parenchyma;

Changes of the skin and mucosa.

PHIALS OF 10 ml.

E. Merck

Sole agents for India:

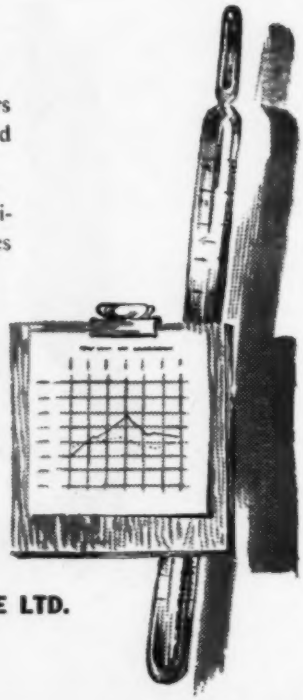
CAPCO PRIVATE LIMITED, E. MERCK DEPARTMENT,

P. O. Box 1652, Bombay-1

EMV-1

Chloramphenicol—Antibiotic, Vitamin B Complex factors —Anti Stress, Vitamin C—Promotes Healing and Vitamin K—Anti Haemorrhagic.

Counteracts infection—Increases the efficacy of the antibiotic—Counteracts the sub-clinical Vitamin deficiencies —Minimises the incidence of side effects.



VITAMYCETIN

Bottles of 12 tablets • Bottles of 100 tablets

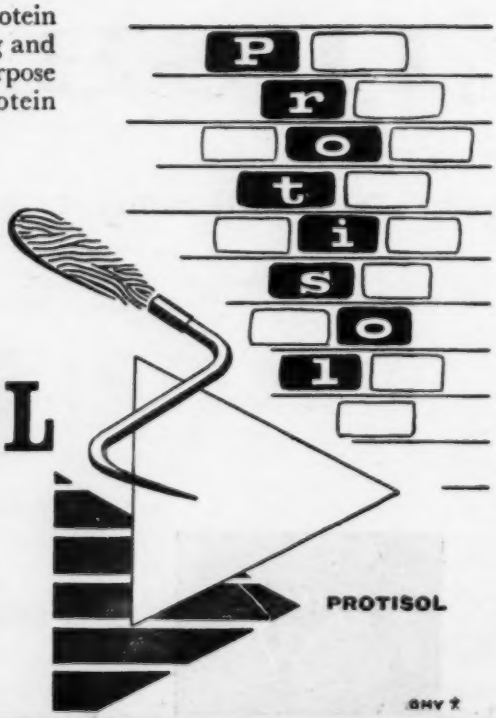
GEOFFREY MANNERS & CO. PRIVATE LTD.
Magnet House, Dougall Road, Bombay 1
Branches: **Calcutta • Delhi • Madras**

GMV-5

PROTISOL, a pleasantly-flavoured protein hydrolysate preparation for the young and old, is formulated with a specific purpose to help rapid recovery from protein deficiency diseases.

It contains the most important factors for recovery viz:

1. **Amino Acids as modified proteins**
2. **Calcium**
3. **Vitamin B Complex**



PROTISOL

12 oz. jars containing cocoa-flavoured granules.

GEOFFREY MANNERS & CO. PRIVATE LTD.
Magnet House, Dougall Road, Bombay-1
Branches: CALCUTTA - DELHI - MADRAS

GMV 2

Method of preparation—The nuts are first soaked in water for about 4 to 5 days in summer, but 7 to 8 days in winter. These are then cut into fine thread-like pieces. This type of nuts is often referred to as *'daura'*. Nuts are also crushed into very fine particles, with the help of pestle and mortar.

The tobacco leaves are then taken and crushed into fine pieces and then passed through standard sieves. Lime in powdered form is taken and is thoroughly mixed with the crushed tobacco leaves. This is to give them a coating of lime. Crushed as well as the finely cut nuts are then added in required proportions to the already treated tobacco. A thorough mixing of these is done. Lime as a result gets coated on the nuts also. Clove is then added to the mixture of tobacco leavings, nuts and lime and thoroughly mixed. To this mixture cardamom is added in appropriate amounts. *Kewra* and sandal powder are then added in small amounts to give the tobacco a little flavour. This tobacco is then referred to as "Kurari" of Mainpuri.

It would be of interest to note that use of betel nut or *supari* only did not predispose to cancer. Khanolkar's (1950) studies in Bombay State have revealed a lower incidence of oral cancer in those who chewed *supari* than in those who did not use it.

SMOKING :

The aetiologic role of smoking is uncertain. Although "Chutta" cancer of palate in Andhra is now established to be associated with reversed cigar smoking, it is difficult to conclude in our series, the role of smoking of cigarettes and *bidis* in the usual way. 88 cases in a total of 750 cases gave a positive history for smoking, out of which in 64 cases, it was associated with tobacco chewing. It is probable that smoking continued over long periods may contribute to the aetiology of cancer of the lip and tongue due to the combined action of heat and tobacco carcinogens.

Comments and Conclusions

In the absence of experimental data, and in the absence of the knowledge at this stage as to the proportion of non-cancer cases or the general population which use Mainpuri or Pattiwala tobacco or no tobacco at all, a cause and effect relationship between the Mainpuri brand of tobacco and oral carcinoma in western U.P. cannot be definitely established. In the similar absence of comparable data for non-cancer patients, or for the general population, carcinogenic action of some ingredients in this tobacco cannot be concluded. Further epidemiological studies are being carried on. The importance of epidemiological studies in cancer research is, however, proved, and the role of geography in pathology is conclusively shown. Usages, customs, traditions and family surroundings have all played a part in the persistence of this habit of tobacco chewing. Such conclusive studies of the role of geographic and environmental factors in the aetiology of cancer should prove extremely useful from the public health point of view, as simple stoppage of the use of this tobacco is likely to produce decisive results in the field of Cancer Control.

In an effort to determine the specific carcinogenic substances in tobacco the tumour-producing activity of various tar fractions of the Mainpuri tobacco have to be studied. The concomitant study of systemic factors which may produce precancerous hyperkeratotic lesions in the buccal mucosa is equally important. At present the study is confined to the determination of possible existence of vitamin A deficiency. This deficiency is known to lead to metaplasia directed towards stratified keratinised epithelium. Results would be made available in a future communication.

References

KHANOLKAR, V. R.—*Acta De L'Union Internationale Centre Le Cancer*, **6** : 881, 1950.

KINI, M. G. AND SUBBARAO, K. V.—*Indian M. Gaz.*, **72** : 677, 1937.

MARTIN, H. E. AND PFLUEGER, O. H.—*Arch. Surg.*, **30** : 731, 1935.

NATH, V. AND GREWAL, K. S.—*Indian J. M. Research*, **23** : 147, 1935.

ORR, J. W.—*Lancet*, **2** : 575, 1933.

PAPANICOLAOU, G. M. AND TRAUT, H. F.—Diagnosis of Uterine Cancer by the Vaginal Smear. New York Commonwealth Found., 1943.

WYNDER, E. L., GRAHAM, E. A. AND CRONINGAR, A.—*Cancer Res.*, **13** : 855, 1953.

AN ANALYSIS OF 120 ASPIRATION NEEDLE BIOPSIES OF THE KIDNEY

L. R. SARIN, M.R.C.P.

AND

J. C. SARIN, M.D., D.T.M.

Sawai Mansingh Medical College, Jaipur (Rajasthan)

The procedure of aspiration needle biopsy of the kidney as an aid to diagnosis has passed through various phases. Peerz (1950) and subsequently Iversen and Brun (1951) by performing a number of renal biopsies with an improved technique showed that the procedure was a safe one. Since then the technique has further been modified by Kark and Muerhcke (1954).

During the last 2 years we have performed 120 renal biopsies and the present report deals with an analysis of the same.

Methods and Materials

We have used the technique of obtaining the renal biopsy in sitting position (Iversen and Brun, 1951).

As a preliminary to renal biopsy, the clotting time, bleeding time and prothrombin time were carried out in each case to exclude any patient with haemorrhagic diathesis. A local anaesthesia was used for performing the needle biopsy.

The tissue obtained was fixed in 10 per cent formaline saline. Paraffin embedding and haematoxylin and eosin staining were carried out as a routine measure. The patient was advised rest in bed for the next 24 hours and was closely observed.

Complications and Symptoms Encountered

Almost all our cases, in whom renal biopsy was successful had microscopic haematuria lasting for 24 hours and mild backache. Eight cases showed gross haematuria. Peculiarly enough, all these cases were suffering from diabetes mellitus but without hypertension. The pathological findings in the kidney, however, does not seem to show any constant pathological lesion associated with haematuria of this type. Perhaps the coincidence in our cases is incidental. In cases studied by Kark *et al* (1958) one case who showed gross haematuria was of chronic nephritis and in other cases (26 cases out of 500 cases they reported) they do not state the nature of disease in which this complication was encountered.

In one of our cases, the haematuria lasted for 8 days, but with no other harmful effects.

We did not encounter any case of bacteriaemia or perirenal abscess, inspite of the fact that at least 10 of the cases under investigation turned out to be cases of chronic pyelonephritis. Acute pyelonephritis may then possibly be the offender for this complication in the cases reported by other authors.

Incidence of Successful Biopsy

In the present series of 120 cases 103 cases showed adequate renal tissue. In 3 cases, no renal cortex but only renal medulla was found. Of the remaining 13 cases, 10 cases showed fibromuscular tissue and 3 cases showed liver tissue. Thus renal biopsy was successful in 88·3 per cent.

Too much obesity, too much of leanness and lack of cooperation on the part of the patient—all have been blamed by Kark *et al* (1958) as causes of failure to obtain renal biopsy. In our experience a blunt needle could safely be blamed for the failure in some cases.

Renal Biopsy—Its Value

In 46 cases of nephrotic syndrome renal biopsy alone and no other clinical procedure, was successful in establishing a definite diagnosis of the underlying disease. Amyloidosis, chronic lobular nephrosis, pyelonephritis, Ellis type I and Ellis type II nephritis accounted for most of these cases. In approximately 20 per cent of these cases the clinical and other laboratory procedures pointed to the exact diagnosis.

In a case of pulseless disease, the renal biopsy helped to unearth the underlying pathology of polyarteritis nodosa as a cause of the syndrome in the case we studied (Fig. 1, *vide* Plate).

In both the series of cases studied above, the help in prognosis offered by renal biopsy could not be equalled by any other known procedure.

In 36 cases of diabetes mellitus under 30 years of age, in whom renal biopsy was performed, we have found morphological changes which have been considered, either rare or infrequent in the young.

In pulmonary tuberculosis we found that out of 24 cases 3 had renal tuberculosis without showing any clinical or laboratory evidence of the disease. Other cases showed focal glomerulonephritis, amyloidosis and pyelonephritis.

The other cases in which renal biopsy was studied, can be grouped as "Miscellaneous" comprising as they do cases of such wide nature as essential hypertension, rheumatoid arthritis, disseminated lupus erythematosus, epidemic dropsy, toxic myocarditis, progressive muscular atrophy, respiratory infections and other diseases. It was found that not all cases clinically diagnosed as essential hypertension have the same pathology. The basic lesion in 6 cases was found to be subacute diffuse glomerulonephritis, nephrosclerosis and pyelonephritis. Similarly a case of rheumatoid arthritis treated with cortisone showed remarkable renal changes.

Summary

Results of analysis of 120 renal aspiration biopsies carried out by us are reported.

References

Kark, R. M. and Muerhcke, R. C.—*Lancet*, **1** : 1047, 1954.

Kark, R. M., Muerhcke, R. C., Pollack, V. E., Pirani, C. L. and Kiefer, J. H.—*A. M. A. Arch. Int. Med.*, **101** : 439, 1958.

Iversen, P. and Brun, C.—*Am. J. Med.*, **11** : 324, 1951.

Peerz, A. A.—*Bol. Liga Contra Cancer, Habana*, **25** : 121, 1950, quoted by Kark *et al* (1958).

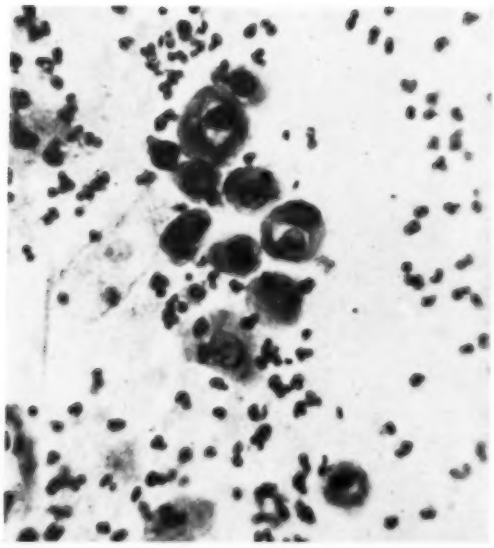


Fig. 12 —Group of differentiated malignant cells in oral smear. Each has a definite cellular outline. Marked anisocytosis, anisonucleosis, hyperchromatism and perinuclear cytoplasmic vacuolisation seen. Papanicolaou's technique × 430.

WAHI *et al—Carcinoma of the Oral Cavity (p. 309).*

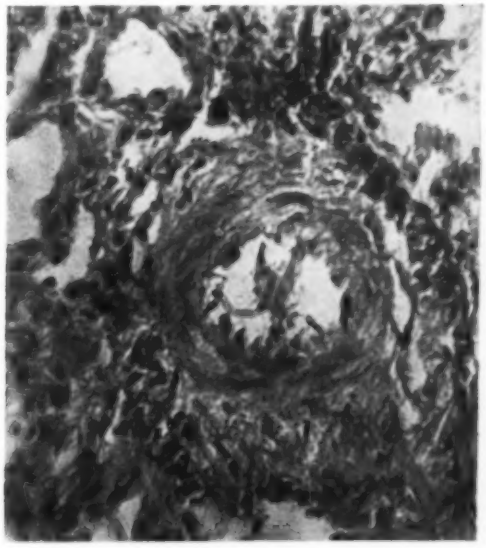


Fig. 1—An arteriole showing fibrinoid necrosis affecting a segment of its wall and perivascular infiltration with histiocytes and a few polymorphonuclears. H. & E. × 550.

SARIN AND SARIN—*An Analysis of 120 Aspiration Needle Biopsies of the Kidney (p. 319)*

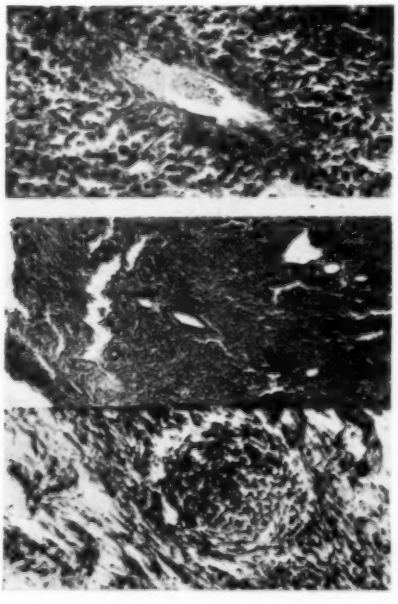


Fig. 1—Photomicrographs illustrating the fibromyomatous lesion in close proximity or intimately related to the vessels. The whorling so typical of the lesion is seen close to the vasculature. (H & E ×60, 180 & 270).

Fig. 2—Photograph *(above)* showing acute inversion of the uterus due to fundal fibroid. Photomicrograph *(below)* illustrating haemorrhagic necrosis of the fibroid —cause of inversion of the uterus. (H & E ×400) (Case 2).

REDDY *et al—Fibromyoma of the Uterus with Special Reference to Sarcoma (p. 323)*

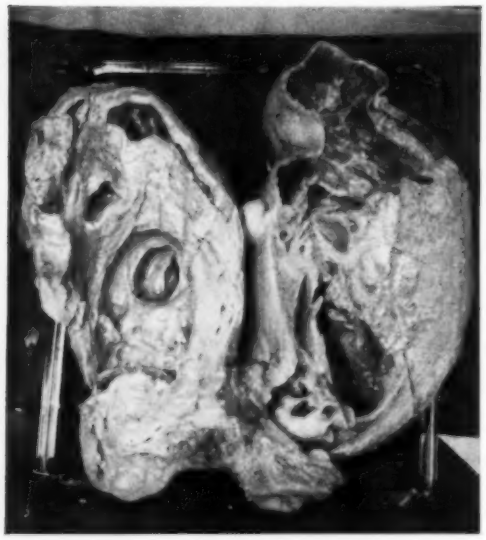


Fig. 3—Photograph showing sectioned surface of fibromyosarcoma of uterus with multiple cystic spaces. Solid parts of the tumour are soft and homogeneous. (Case 4).

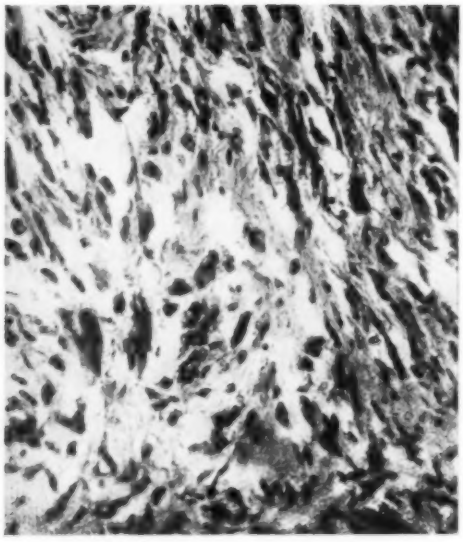


Fig. 4—Photomicrograph illustrating sarcomatous nature of the growth (H & E × 200) (Case 4).

REDDY *et al*—*Fibromyoma of the Uterus with Special Reference to Sarcoma (p. 323)*.

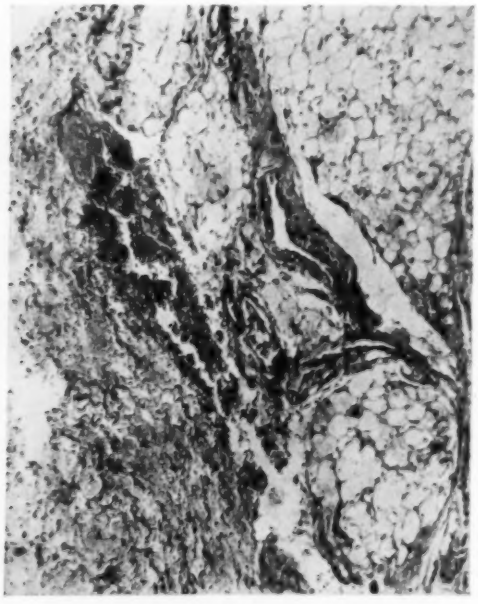


Fig. 1—Masses of mature fat cells separated by bands of collagenous fibrous septa and angiomatoid tissue.

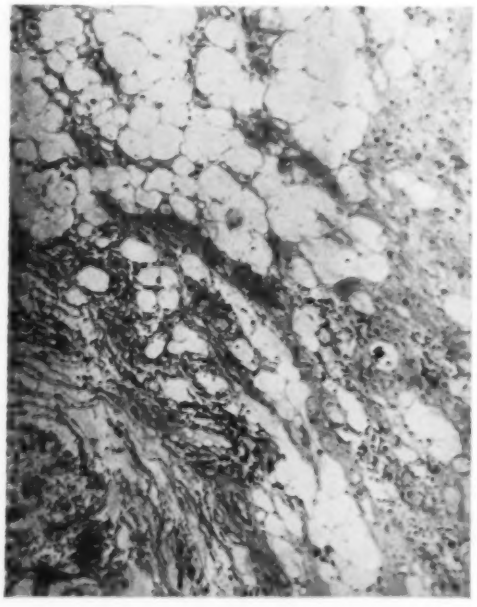


Fig. 2– Mixture of lipomatoid and angiomatoid tissue.

PREGER AND TRIBEDI—*Hamartoma (p. 326)*.

ENGRAVED & PRINTED BY REPRODUCTION SYNDICATE, CALCUTTA 6

FIBROMYOMA OF THE UTERUS WITH SPECIAL REFERENCE TO SARCOMA

D. J. REDDY, M.D., V. KAMESWARA RAO, M.D.

AND

K. GOPALAKRISHNIAH GUPTA, M.B.B.S.

Department of Pathology, Guntur Medical College Guntur

Medical literature is replete with articles on fibromyoma of the uterus, probably because this tumour is very common. The neoplasm is diagnosed between the ages of 30 and 50 and according to Bland (1939) 40 per cent of all women about the age of 50 harbour them. With a view to learn more about these new growths we undertook a critical analytical study of these tumours registered at the department of pathology, Guntur Medical College for the period 1-1-1957 to 1-9-1957. The data so obtained are recorded with some comments wherever necessary only to serve as a guide to the future study.

Out of 196 hysterectomies performed at the Gynaecology Clinic, Government General Hospital, Guntur, fibromyomata were recognised in 97 uteri, giving a percentage incidence of 49·4. In eight cases fibromyomata were incidental findings. Peak incidence of fibromyoma was noticed between 30 and 40 years. In this age group functional bleeding due to causes other than fibromyomata is also found to be high. This is likely to mislead the gynaecologist in not taking note of cases of meno- or metrorrhagia that may be caused by a submucous fibromyoma.

It is the experience of many that fibromyomata are more commonly seen in nulliparous women or in those with a small number of children. Our findings are in support of the fact that women with fewer children run the risk of growing fibromyomata of the uterus (Table 1). We refrain from further comments because generalisation based on a small group of cases where full clinical data are available, is likely to lead to erroneous conclusions.

TABLE 1—SHOWING AGE INCIDENCE, SIZE OF THE FAMILY AND NULLIPARITY OBSERVED IN THE FIBROMYOMATA AND FUNCTIONAL UTERINE BLEEDING SERIES

Factor under consideration	Fibromyoma	Bleeding and/or pain
Mean age of incidence ...	37·4	40
Average number of children in the family ...	2·3	4
Incidence of nulliparity	20 out of 63 cases	7 out of 26 cases

The symptoms for which the patients sought medical aid are given in Table. 2.

TABLE 2—SHOWING CHIEF SYMPTOMS FOR WHICH ADVICE WAS SOUGHT IN 79 CASES OF FIBROMYOMATA OF THE UTERUS

	Mass lower abdomen	Pain abdomen		Menorrhagia or metrorrhagia	Red and white discharge
		With bleeding	Without bleeding		
No. of cases	31	2	2	38	7

Very often bleeding of a functional nature is attributed to a submucous fibromyoma and to assess the exact significance of this statement usually made both by the gynaecologist and pathologist, the presenting symptom or symptoms recorded in our series were analysed according to the site of the neoplasm in the uterus (Table 3).

TABLE 3—SHOWING ANAYLSIS OF THE SYMPTOM IN RELATION TO THE LOCATION OF THE FIBROMYOMA

Presenting symptom	Site of fibromyoma		
	Submucous	Subserous or interstitial	Cervical
Mass abdomen ...	1	9	—
Mass abdomen and bleeding ...	1	3	—
Pain abdomen ...	1	1	—
Pain abdomen and bleeding ...	1	1	1
Bleeding ...	18	4	14
Red and white discharge ...	2	none	1
Total ...	24	18	16

In 20 out of 24 cases of submucous fibromyoma, in all the 16 cases of cervical fibromyoma and in only 8 of 18 cases of subserous or interstitial fibromyomata, bleeding as the chief symptom was noticed. This should serve as caution sufficient for the pathologist to specially look for the presence of fibromyomatous elements in curettings submitted by the gynaecologists from cases of suspected functional bleeding, chiefly to spot submucous fibromyomata responsible for the uterine bleeding. In this regard the recent observations of Zeigerman *et al* (1957) in finding fibromyomatous tissue in the uterine curettings from 40

cases of meno- and metrorrhagia in different age groups are to be noted. They had suggested to the gynaecologist the possible existence of submucous fibromyomata in all these cases and the same was confirmed in seven hysterectomy specimens in this series.

The aetiology of fibromyoma of the uterus continues to be the subject for discussion and so far no one factor has been proved to be the main-factor. Clinical and experimental data appear to suggest that hyperoestrinism plays a signifiant role. Adenomyosis, endometrial hyperplasia, multiple cysts of the ovary, etc., are often associated findings in cases with uterine fibromyomata. These findings were recognised by us in a small number of cases and compared with similar findings observed in cases of functional bleeding unassociated with a fibromyoma (Table 4). We hesitate to commit ourselves and would like to study this aspect of the subject further.

TABLE 4—SHOWING SIGNIFICANT CHANGES OBSERVED IN THE UTERUS AND ADNEXAE IN THE FIBROMYOMATA SERIES AND IN CASES OF FUNCTIONAL UTERINE BLEEDING DURING THE PERIOD OF STUDY

Nature of lesion	Changes in the uterus and adnexae associated with fibromyomata and number in each	Changes in the uterus and adnexae in cases of functional haemorrhage unassociated with fibromyoma
Endometrial hyperplasia ...	3	1
Adenomyosis ...	9	2
Follicular cysts of the ovary ...	5	3

A fibromyoma of the uterus may attain a tremendous size and Doran quoted by Bland (1939) is credited to have reported the largest "fibroid", weighing 147 lb. In our series the smallest one (from the cervix of the uterus) weighed 2 oz. and the biggest weighed 21 lb.

Nothing is definitely known regarding the histogenesis of uterine fibroids, but we found in some of the specimens the histologic unit of the lesion with characteristic whorling intimately related to the musculature of the vessel wall (Fig. 1, *vide* Plate). The view of some that fibroids arise from the primitive muscle mass of the vessels of the uterus has to be further investigated.

Gynaecologists and pathologists are familiar with a variety of degenerative changes a uterine fibromyoma is subject to. The changes are likely to vary for they are only noticed in the large-sized fibromyomata and may not be seen when the tumours are removed in the early stage of growth. Such removal will serve as a prophylactic measure against any sarcomatous change that may set in if the tumour is allowed to grow.

TABLE 5—SHOWING DEGENERATIVE AND OTHER CHANGES AND NUMBER IN EACH OBSERVED IN OUR SERIES

Nature of degeneration								
Hyaline	Cystic	Red	Calcification	Myxomatous	Suppuration	Haemorrhage	Inversion uterus	Sarcoma
30	7	12	2	1	4	7	2	2

Infection, sarcomatous change in the tumour and inversion of the uterus were observed in some of our cases. These are serious complications and unless diagnosed early and attended to immediately death is imminent. Clinicopathological findings of some of these cases are recorded here.

CASE REPORTS

CASE 1 (SUPPURATIVE FIBROMYOMA) :

A female, aged 30 years, was admitted for a swelling in the lower abdomen of one year's duration, associated with dyspepsia, fullness of the epigastric region and amenorrhoea of two months' duration. A tense swelling cystic in feel and of the size of 32 weeks' pregnancy was felt per abdomen. The uterus on vaginal examination was felt to be atrophied and pushed back by the cystic mass. Total hysterectomy with bilateral salpingo-oophorectomy was done.

Morbid anatomy and histology—An interstitial fibromyoma weighing 2350 g. was seen protruding into the uterine cavity. The growth showed multiple cyst-like spaces filled with pus. Sections from the fibromyoma showed hyaline change and acute inflammation with pus formation. Adenomyosis of the uterus was seen in sections of the uterus.

Comment : True suppuration of a fibromyoma is rare. Miller (1945) in a review of literature on the subject upto 1945 found 75 cases recorded since 1871 and our finding of 4 cases in the short period of 19 months only suggests that these patients seek medical aid very late and become victims of supper-added infection.

CASE 2 (INVERSION OF UTERUS SECONDARY TO FIBROMYOMA) :

A female, aged 25 years, was admitted on 23-3-1957 for bleeding occasionally for one year. Her last child was born ten days prior to her admission into the hospital. Examination revealed a 'fibroid' tumour arising from the fundus of the uterus having caused total inversion

of the uterus (Fig. 2, *vide* Plate). Myomectomy was done.

Morbid anatomy and histology—Haemorrhagic granular tumour mass of 4" diameter. Microscopic study of the tumour mass showed extensive areas of haemorrhagic necrosis and muscle and fibrous tissue elements could be made out in bits and fragments (Fig. 2, *vide* Plate).

Comment—In this case the puerperium was complicated by inversion of the uterus due to the presence of a fundal fibromyoma. Total inversion of the uterus met with in two of our cases resulted from fundal fibroids. Both the patients recovered on removal of the neoplasms.

CASE 3 (CELLULAR FIBROMYOMA) :

A female was admitted on 6-11-1956 for a tumour in the lower abdomen. The uterus with the fibromyoma was removed.

Morbid anatomy and histology—The specimen was that of an enlarged globular shaped uterus of the size of 12 weeks' pregnancy. The sectioned surface disclosed interstitial fibroid. In one half of the specimen the typical whorled pattern of the growth was seen, while in the other half homogeneous, soft tumour mass was seen. The contrast between the two halves of the neoplasm was very striking. Sections from the latter half showed highly cellular fibromyoma with foci of necrosis.

Comment—This case impresses the fact that whorling so characteristic of fibroid tumours of the uterus is replaced by soft tissue which cuts with ease and is composed exclusively of cellular mass. These must be viewed as potentially malignant for allowed the time, they transform into sarcoma.

CASE 4 (SARCOMA UTERUS) :

L. B., Muslim female, aged 35 years, was admitted for a growth in the lower abdomen of one year's duration associated with vaginal bleeding and backache for four months. Examination disclosed a horse-shoe shaped firm swelling extending into the left loin. The upper border of the tumour extended up to the umbilicus. The cervix could not be made out. The body of the uterus also could not be made out.

Morbid anatomy and histology—Encapsulated, irregularly shaped fibromyoma weighed 1719 g. The sectioned surface of the growth showed multiple cystic areas (Fig. 3, *vide* Plate). The solid parts of the tumour presented whorled areas and also homogeneous soft areas. Sections from multiple blocks studied revealed highly cellular fibromyoma with extensive areas of sarcomatous transformation (Fig. 4, *vide* Plate). The malignant cells are predominantly of the spindle-cell variety.

CASE 5 (SARCOMA UTERUS WITH METASTASES IN THE OVARIES AND FALLOPIAN TUBES) :

K., Hindu female, aged 35 years, was admitted for a mass in the lower abdomen. The abdomen was opened through a subumbilical incision. A partly solid and partly cystic tumour arising from the fundus of the uterus was seen adherent to the parietal peritoneum. The ovaries and tubes appeared to be much enlarged. The tumour was excised along with portions of the tubo-ovarian masses. Subtotal hysterectomy was done owing to the fixity of the cervix and distorted nature of the adnexae. The tumour mass was pale, friable and cheesy in consistency. In places the cystic spaces contained chocolate-coloured material.

Morbid anatomy and histology—The specimens consisted of the cystic tumour of the uterus, circumscribed white friable deposits of tumour tissue in the ovaries and the tubes. The tumour tissue was whitish and homogeneous. The shape and architecture of the ovaries and tubes were well preserved.

Sections from all the bits disclosed sarcomatous appearance. Mitotic figures were not many. The tubal wall was infiltrated with sarcomatous deposits. The vessels in the ovarian stroma enclosed tumour thrombi and in places organisation of the same was noticed. The sections from the primary tumour mass of the uterus was capsulated in places and showed sarcomatous changes.

Comment—Sarcoma of the uterus is an uncommon neoplasm. It is said to contribute to 0·39 to 6 per cent of smooth muscle tumours of the uterus. The variable percentage incidence of this malignant neoplasm reported from different clinics is recorded in Table 6. Clinically the neoplasm is rarely diagnosed and it is difficult to recognise the same even at operation. Loss of circumscription, friability, softness, haemorrhage, and loss of whorling so characteristic of benign fibroids, and homogeneous look of the tumour mass on the gross as were noted in both of our cases offer clue to look for histological evidence of malignancy. We believe that in both of our cases the sarcomatous change supervened over benign fibromyoma of the uterus. This is borne out by the fact that Case 4 was of interstitial type and Case 5 of subserous type and in both malignant change took place at the centre of the tumour mass. The possibility of benign metastasis of fibromyoma was considered in Case 5 but the unequivocal cytological appearance of the tumour cells convinced us to label it as sarcoma with ovarian and tubal metastases.

TABLE 6—SHOWING COMPARATIVE INCIDENCE OF FIBROMYOMA AND FIBROMYOSARCOMA REPORTED FROM DIFFERENT CLINICS

Author	No. of leiomyoma	Leiomyosarcoma	
		No.	Per cent
Indiana University Med. Centre	2417	5	0·2
Indianapolis General Hospital	2800	6	0·21
Evans (1920)	3297	13	0·39
Wheelock & Warren (1942)	2000	13	1·35
Warner (1917) ...	100	2	2·0
Geist (1914)	250	12	4·8
Proper & Simpson (1919)	357	22	6·0
Reddy, Rao & Gupta (present series) ...	97	2	2·05

Sarcoma of the uterus is most commonly seen in women past menopause but both our patients were below 40 years of age. The occurrence of fibromyosarcoma in younger age group has to be borne in mind. Death in most of the cases is due to widespread metastases. In Case 5 of our series the secondaries were limited to the ovaries and tubes and these are not uncommon sites for William (1950) noted ovarian secondaries in 3 of his 33 cases of uterine sarcoma.

Summary

Fibromyomata contributed to 49·4 per cent of the specimens of hysterectomy at the Government General Hospital, Guntur.

Clinicopathological findings in cases of suppuration of a fibroid, inversion of the uterus due to a fibroid, cellular fibroid and sarcoma of the uterus are recorded.

The rarity of sarcoma of the uterus is stressed and the need to be on the lookout to spot both on the gross and histologically early changes of malignancy is emphasised on the basis of the two reported cases.

Acknowledgments

We thank Drs. Smt. Rajeswari, Smt. R. Satyabhama Reddy, Kumari Pankajam, Kumari C. Ramani and H. B. Gideon for the case notes and Dr. D. Bhaskara Reddy for furnishing us with some references. We acknowledge with pleasure the help rendered by the photo-artists Venkateswara Rao and Narasimha Rao.

References

Bland, P. B.—Gynaecology, Medical and Surgical, 1939, Third Edition, F. A. Davis Co., Philadelphia.

Evans, N.—*Surg., Gynec. & Obst.*, **30** : 225, 1920.

Giest, S. H.—*Am. J. Obst.*, **69** : 766, 1914.

Miller, I.—*Am. J. Obst. & Gynec.*, **50** : 522, 1945.

Proper, M. S. and Simpson, B. T.—*Surg., Gynec. & Obst.*, **29** : 39, 1919.

Warner, F.—*Am. J. Obst.*, **75** : 241, 1917.

Wheelock, M. C. and Warren, S.—*Ann. Surg.*, **116** : 882, 1942.

William, P. F.—*Am. J. Obst. & Gynec.*, **60** : 1254, 1950.

Zeigerman, J. H. Valdes-Dapena, A. M. and Fetting, L.—*Ibid*, **73** : 1286, 1957.

CASE NOTES

HAMARTOMA

L. PREGER, M.B., CH.B., D.R.C.O.G.

AND

B. P. TRIBEDI, M.B., D.BACT. (LOND.)

Calcutta

Certain malformations caused by dysplastic or heterotopic tissue have a superficial resemblance to neoplasms, but undoubtedly are not true neoplasms in that they lack the indefinitely progressive uncoordinated proliferation characteristic of tumours. They are present from birth and cellular multiplication in them is limited in amount and duration, in the sense that they usually undergo some enlargement in size during the growing age, but with the attainment of full growth of the body they become stationary, provided some accidental trauma on them does not precipitate a complication. To differentiate such conditions from neoplasms, these have been designated as hamartomas.

An interesting case of lipoangiomatous swellings which we came across and which is best classified as hamartoma is being reported.

Case Report

In February 1956, a male Hindu child of six months was brought in with multiple nodular swellings in the trunk. The swellings which had been noticed by the parents some two weeks earlier were progressively increasing in size and number. The child was also reported to have had attacks of rigidity and cervical extension which resembled opisthotonic seizures. There were no accompanying clonic movements, faecal or urinary incontinence or self injury. These attacks, however, never occurred while the child was under observation. The child was said to have had pneumonia at the age of two months. He was the youngest of three children, the other two being alive and healthy. His mother, aged thirtyfive, had had six pregnancies in all. The first and the third ended in spontaneous abortion at four months ; the second pregnancy went to term but the child died on the first day (cause of death unknown). The patient's parents and grandmother were alive and healthy ; the grandfather died at the age of sixty, apparently from cardiac failure.

On examination the child had three subcutaneous swellings on the dorsal aspect of the trunk, and ten on the ventral aspect. The swellings varied in size from about 3 mm. to 2·5 cm. in diameter. The smaller ones were firm, the larger ones soft and compressible. The overlying skin was freely mobile and through it the swellings had a cyanotic

hue. They were not tender. There was no significant abnormality in any system.

Biopsy—Two of the swellings, one large and one small, were excised under general anaesthesia for histological examination.

In the gross they had a dusky red colour. No capsule was seen.

Microscopically the picture was essentially similar in both the swellings. There were masses of mature fat cells separated by bands of collagenous fibrous septa of variable thickness interspersed with numerous blood vessels and blood sinuses (Fig. 1, *vide* Plate). In some areas the fat cells were found to lie free within pools of red blood cells lined with incomplete endothelial lining (Fig. 2, *vide* Plate).

The child was seen again one month later. No fresh swelling had appeared. The original ones did not appear to have increased in size. When the child was next seen after three months, some of the small nodules in the abdominal wall had completely disappeared.

Comments

Evidently these collections of lipoangiomatoid masses were non-neoplastic in nature, and complete regression of some of the lesions is of considerable interest. In cases with such malformations, other developmental anomalies like deformities of bones and muscles have been reported; no such associated lesion was present in our case. Lipomatous condition of the choroid plexus (Baker and Adams, 1938) and of the central nervous system (Collin and Henderson, 1949; Taylor *et al*, 1951) is known to occur, and whether the reported opisthotonic seizures could be due to any lipomatoid condition of the central nervous system is a matter of pure conjecture. No sign of any central nervous system lesion was clinically detectable.

References

BAKER, A. B. AND ADAMS, J. M.—*Am. J. Cancer*, **34** : 214, 1938.

COLLINS, D. H. AND HENDERSON, W. R.—*J. Path. Bact.*, **61** : 227, 1949.

TAYLOR, J., HARRIES, B. J. AND SCHURR, P. H.—*Brit. J. Surg.*, **39** : 1, 1951.

BENIGN MYALGIC ENCEPHALOMYELITIS

B. B. BHATIA, M.D., F.R.C.P. (LOND.)
SATISH CHANDRA, M.D.
AND
CHHABI BHUSHAN, M.B.B.S.

Department of Medicine
K. G. Medical College, Lucknow, U.P.

In the last decade several outbreaks of an unusual illness have been described under various heads as "An illness resembling poliomyelitis (Siguardsson *et al*, 1950; Macrae and Galpin, 1954), encephalitis associated with poliomyelitis virus (Acheson, 1954), Iceland fever (White and Burtch, 1954) and benign myalgic encephalomyelitis (Compston, 1956). All of these were attributed first to poliomyelitis virus, but the unusual features of the disease were found to be strikingly different. Nine outbreaks have thus been reported which have many features in common; one each from Iceland, Australia, New York, Berlin and Durban and four from Britain.

We also came across a similar case but unlike most of the outbreaks reported previously, the present case was sporadic and is being reported to establish the existence of a disease in India which has been reported from different parts of the world.

Case Report

On 6-1-58 a young man of 25 was admitted with complaints of fever, severe pain all over the body, rigidity and tenderness and loss of power in all the four extremities for 7 days and retention of urine for 24 hours. A week ago, the patient's illness started with fever and headache which was followed, 48 hours later, by severe muscular pain and tenderness all over the body and, 72 hours later, by marked weakness in all 4 extremities. During the 24 hours preceding admission, he had retention of urine.

Examination revealed a mentally alert patient with temperature 103°F and B.P. 124/82 mm. of Hg. There were marked tenderness, rigidity and loss of power in all four extremities. It was difficult to decide the degree of loss of power due to extreme muscle tenderness. All the jerks were exaggerated, abdominal reflexes on both the sides were absent. Plantar reflex was extensor on both the sides. All the sensations were intact, the bladder was full and palpable below the umbilicus. Sustained ankle clonus was present on both sides.

Laboratory investigations—Blood: W.B.C. 14,000/c.mm. with polymorphs 92 per cent. C.S.F. was under normal tension, with cells less than 5/c.mm. Proteins 40 mg. per cent, sugar 110 mg. per cent, and chloride 700 mg. per cent. Lange's colloidal gold reaction was 0555555533. W.R. was negative in blood as well as in C.S.F.

Treatment—Soon after admission the patient was catheterised once and after this he started passing urine by himself, though with some difficulty in the beginning. He was put on prednisone and aspirin. Combiotic was administered in the beginning as the patient was catheterised. The fever came down after 10 days with considerable diminution in pain and some return of power in the limbs, but he complained of numbness in the extremities and was found to be irritable and restless off and on. By the end of a month's stay in the hospital, pain and rigidity disappeared and

power returned to almost normal. On 29-1-58 he was discharged fit.

Discussion

The case reported here was admitted with fever, severe headache, pain and extreme tenderness in muscles of the body. There was marked weakness of the limbs. It appeared at first as if one was dealing with a case of poliomyelitis, but as the examination of the patient revealed rigidity in the limbs, exaggerated deep tendon jerks and sustained ankle clonus, extensor plantar reflex, bladder disturbance and normal C.S.F. findings except some change in Lange's colloidal gold reaction doubt was cast on the diagnosis of poliomyelitis. Meals and Bowers (1932), and Smith *et al* (1953) reported incidence of abnormal C.S.F. in 85-95 per cent cases of poliomyelitis; signs of upper motor neurone lesions are very uncommon in poliomyelitis; Jennings *et al* (1949) and Kelleher *et al* (1949) published one case each of encephalomyelitis with upper motor neurone lesion due to the poliomyelitis virus but both the cases proved fatal. Thus although none of the points were incompatible with the diagnosis of atypical poliomyelitis, it was unlikely that a febrile illness with extensive paralysis, hyperactive tendon jerks, sustained ankle clonus, extensor plantar response, normal C.S.F. and above all complete recovery within a month such as our patient had was a case of poliomyelitis.

Some of the clinical features of the disease suggested epidemic myalgia (Bornholm's disease). However involvement of the parenchyma of the nervous system has rarely been substantiated in man in Coxsackie infection, although it is known to occur in suckling mice infected with Coxsackie virus B (Dalldorf, 1958). In those cases in which neurological complications of Coxsackie infection have been reported, there has been little or no objective evidence of an encephelomyelitis as opposed to meningitis (Howard *et al*, 1943; McConnel, 1945; Galpine and Macrae, 1953). Exceptions to our knowledge are some cases of Galpine *et al* (1953) and a report in children (Disney *et al*, 1953). Benign aseptic meningitis which was absent here is a recognised complication of Bornholm's disease.

The fever, extreme muscle pain and tenderness, signs of involvement of pyramidal tract, bladder disturbance, sensory symptoms, mental irritation during convalescence, normal C.S.F. and above all complete recovery helped us to label this case as one of benign myalgic encephalomyelitis occurring sporadically.

Summary

A case of benign myalgic encephalomyelitis is described. 9 outbreaks of this disease have been reported from other parts of the world till now. The case described occurred sporadically.

References

Acheson, E. D.—*Lancet*, **2**: 1044, 1954.
Compston, N. D.—*Brit. M. J.*, **2**: 157, 1956.
Dalldorf, G.—Papers and Discussions presented at the Second International Poliomyelitis Conference, 1952, page 111, as quoted by Acheson (1954).
Disney, M. E., Howard, E. M. and Wood, B. S. B.—*Brit. M. J.*, **1**: 1351, 1953.
Galpine, J. F. and Macrae, A. D.—*Lancet*, **1**: 372, 1953.
Howard, T., Weymuller, C. A., Edson, J., Ittner, E., Watson, J. and Cassidy, M. L.—*J.A.M.A.*, **121**: 925, 1943.
Jennings, G. H., Hamilton-Paterson, J. L. and MacCallum, F. O.—*Brit. M. J.*, **2**: 210, 1949.
Kelleher, W. H., Bratton, A. B. and MacCallum, F. O.—*Ibid*, **2**: 213, 1949.
Macrae, A. D. and Galpine, J. F.—*Lancet*, **2**: 350, 1954.
McConnell, J.—*Am. J. M. Sc.*, **209**: 41, 1945.
Meals, R. W. and Bowers, A. G.—*J. Lab. Clin. Med.*, **17**: 409, 1932.
Sigurdsson, B., Sigurjonsson, J., Sigurdsson, J., Thorbelsson, J. and Guidmundsson, K. R.—*Am. J. Hyg.*, **52**: 222, 1950.
Smith, R., Harris, I. L. and Rosenblatt, P.—*J. Pediat.*, **49**: 3, 1953.
White, D. N. and Burtch, R. B.—*Neurology*, **4**: 506, 1954.

CHRONIC LEAD POISONING

S. DEVADATTA, M.B.B.S.
Clinical Tutor
AND
S. VERGHESE, M.B.B.S.
Registrar
Department of Medicine
Christian Medical College Hospital, Vellore

Most cases of lead toxicity are due to industrial poisoning, household poisoning being comparatively less common. Reports of household lead poisoning in the Indian medical literature are few. Besides the 4 cases reported here three near relatives also showed evidence of abnormal lead absorption without symptoms of toxicity.

Case Reports

Case 1—S., male, aged 31, a clerk, stated that he was well till 2 months previously when he noticed progressive weakness of both hands. Later he noticed tremor in the hands and pain in the limbs.

On examination the patient appeared to be thin with considerable wasting and weakness of the extensor muscles of the hand resulting in a bilateral wrist drop. He also had wasting of the shoulder girdle muscles on both sides. The patient's oral hygiene was very poor and a blue

INTRODUCING *Shortly*

5

INSULINS

- Insulins with sustained actions
- No allergic reactions of protamine.
- Zinc acetate suspensions

Economical

Uni-Dura

Uni-Semi Dura

Uni-Extra Dura

also

Crystalline &

Zinc Protamine

UNICHEM QUALITY RELIABILITY

UNICHEM LABORATORIES BOMBAY 26.

HYDROPROTEIN

[PROTEIN HYDROLYSATE]

rich in essential amino acids

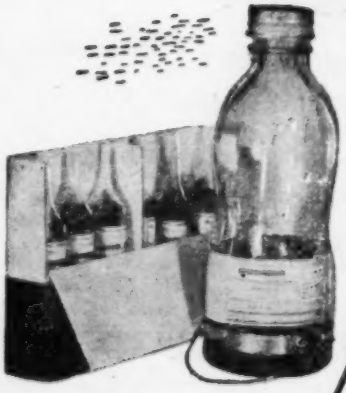
HYDROPROTEIN (Inj.) contains 5% protein in the form of amino acids and peptides in normal saline.

HYDROPROTEIN (Oral) contains about 20% amino acids and lower peptides each fl. oz. representing 6 gms. of protein. Has been suitably supplemented with carbohydrate and essential aromatics to make it a palatable elixir.

Serves as an invaluable aid in protein starvation and in maintaining nitrogen balance under different pathological conditions associated with impaired absorption of protein foods as in chronic diseases, inadequate synthesis of plasma protein as in liver diseases, increased protein catabolism as in febrile states, surgical operations and excessive loss of protein during pregnancy, lactation, hæmorrhage and also as an antacid modifies the gastric juice.

Packings : *Injection* Boxes of 6, 12 & 50 amps of 25 c c each. Bottle of 200 c. c.

Oral Bottle of 10 fl. oz.



Bengal Immunity CO., LTD. CALCUTTA-13

line was seen at the dentogingival margin. The blood pressure was 180/120 mm. Hg. Examination of the heart, lungs and abdomen revealed no abnormality.

Laboratory investigations—Urine showed presence of coproporphyrin III.

Blood—Haemoglobin was 9·4 g. per cent and blood film showed the presence of basophilic stippling (both coarse and fine) in 1 per cent of red cells.

Bone marrow studies revealed basophilic stipplings of normoblasts and erythrocytes.

CASE 2—A, female, aged 25, sister of Case 1, a housewife, stated that she had no symptoms till a month prior to admission, when she had an attack of generalised convulsions with loss of consciousness for a few minutes. Since then she had been having attacks of colicky abdominal pain not related to meals. Later she developed pain in the limbs and began to "feel weak" in both hands, which had been gradually progressive.

On examination the patient was found to be thinly built with weakness and atrophy of the extensor muscles of the wrist resulting in a bilateral wrist drop. She had no wasting of the shoulder-girdle muscles. Her oral hygiene was poor and she also had a blue line on the gums.

Laboratory investigations—Urine showed coproporphyrin III.

Blood—Haemoglobin was 7·7 g. per cent. Blood film showed stippling of the red cells (0·5 per cent).

Bone marrow showed stippling of normoblasts and erythrocytes.

The mother of Cases 1 and 2 and the husband of Case 2 were examined and found to have blue lines and stippling of the erythrocytes (0·8 per cent in the former and 0·4 per cent in the latter) without any symptoms. It was found that these patients had been using lead vessels for the preparation and storage of curds ever since they could remember. At the time of admission to hospital Case 1 lived with his mother whereas his sister (Case 2) lived separately with her husband. Before her marriage Case 2 was living with her mother where curds were prepared in lead vessels, this practice being continued in her new home after marriage.

CASE 3—K, a female aged 37, housewife, was admitted to hospital with a history of having attacks of colicky abdominal pain, not related to food for about one month. Later she noticed weakness of both hands and feet.

Physical examination—There was marked wasting of the extensor group of muscles of both the upper and lower extremities resulting in a bilateral wrist drop and foot drop. A blue line was present at the dentogingival margin.

Laboratory investigations—Urine showed presence of coproporphyrin III.

Blood—There was stippling of the red cells (0·6 per cent). The haemoglobin was 6·0 g. per cent.

CASE 4—S, a female aged 31, sister of Case 3, a housewife, was seen in the outpatient department with a history of weakness of the hands of 3 months' duration. She had bilateral wrist drop and a gingival blue line. While she was being examined she had a severe and prolonged generalised convulsion and died soon after.

Permission for autopsy was refused.

The mother of Cases 3 and 4 was examined and found to have a blue line on the gums and basophilic stippling of the erythrocytes. As in the case of the first family the source of lead was traced to vessels in which curds were prepared.

Treatment—Cases 1, 2 and 3 and their relatives were advised to give up the use of lead vessels. They were given a high calcium diet containing about 2·4 g. of calcium per day, which included 22 oz. of milk and 3 oz. of curds. For the wrist drop cock-up splints were applied and physiotherapy started.

Follow-up—Case 1 was seen 9 months after discharge from the hospital. The weakness of the extensors had considerably improved and the wrist drop had almost disappeared. The blue line was just visible. The basophilic stippling had considerably decreased and only very occasionally was a red cell seen to be stippled. His haemoglobin had increased to 10·8 g. per cent. Although Case 2 was not personally followed up the brother (Case 1) reported that she had similar improvement in the muscle power of her wrists.

DISCUSSION

These 4 patients were all adults—3 females and 1 male and came from two different Brahmin families. They were a brother and sister from one family and two sisters from the other; one family resided in Rasipuram (Salem District) and the other at Bhavani (Coimbatore District) of the Madras Province.

These patients had the classical symptomatology and laboratory findings of chronic lead poisoning. Three near relatives of the patients from either family showed gingival blue lines and significant stippling of the red cells. With all this evidence a diagnosis of lead poisoning was made. However lead estimations in blood and urine were not carried out.

It was found that in both the families lead vessels were used to prepare and store curds. Presumably the acid of the curds dissolved the lead from the vessels.

The patients were advised to give up the use of these vessels and at least 2 out of 3 patients showed marked clinical improvement in a period of 9 months. There is, therefore, strong circumstantial evidence to incriminate the lead vessels especially as we could find no other source for lead intoxication either occupational or domestic. It is interesting to note that as early as 1757, Theodore Tronchin, a French physician, ascribed cases of abdominal colic in Amsterdam to water passing over lead roofs and stored in lead vessels and kept for drinking purposes (Major, 1945).

The cases reported by Candy (1933) and Mankad (1939) were from Ahmedabad, but the clinical findings in their patients were not typical. Both of them suggested that the principal source of lead poisoning in their cases was "tinned" vessels, where the tin was adulterated with lead and was used for cooking and for storage of ghee. This seems to be only a surmise as there is no indication whether any of their patients were found to be using such vessels. Sein (1937) described the case of an Indian, residing in Burma, who had attacks of abdominal pain, diarrhoea and joint pains only. The patient used lead-lined vessels for cooking food and for boiling milk. The patient's symptoms disappeared after he gave up the use of the vessels.

The occurrence of chronic household lead poisoning may be much more frequent in South India than is generally supposed, especially in view of the fact that our patients stated that a number of families in their localities were using similar vessels. If this condition is kept in mind more cases of lead poisoning will probably be detected. Appropriate public health measures should be taken to prevent the sale and use of lead vessels.

Summary

Four cases of chronic lead poisoning exhibiting classical clinical manifestations are reported.

The source of the intoxication was traced to lead vessels in which curds were prepared and stored.

Two out of the three living patients have shown definite clinical improvement in a period of 9 months after they discarded the use of the lead vessels.

Acknowledgments

The authors are thankful to Dr. P. Kutumbiah, Professor of Medicine, and Acting Director of the Institution; and to Dr. J. Chandy, Head of the Department of Neurology and Neurosurgery for permission to report these cases. They also wish to express their gratitude to Dr. S. J. Baker for helpful suggestions.

References

CANDY, R. H.—*Indian M. Gaz.*, **68** : 136, 1933.

MAJOR, R. M.—Classic Description of Disease. Charles C. Thomas, Third Edition, 1945, Springfield, U.S.A., p. 318.

MANKAD, G. B.—*Antiseptic*, **36** : 1016, 1939.

SEIN, M.—*Indian M. Gaz.*, **72** : 595, 1937.

I. M. A. ELECTIONS

At a meeting of the Working Committee held at Delhi on 19th, 20th and 21st September, 1958, the following were declared duly elected for the year 1958-59. They will assume office at the time of the next All-India Medical Conference to be held at Cuttack in December, 1958.

President-elect ... Dr. C. O. Karunakaran (Trivandrum)

Vice-Presidents-elect ... 1. Dr. P. N. Sinha (Patna)
2. Dr. A. P. Shukla (Ahmedabad)
3. Dr. Y. P. Vasudevan (Coimbatore)

XXXV ALL-INDIA MEDICAL CONFERENCE, CUTTACK

Arrangements have been made by the Organising Committee of the Conference to accommodate the members of the Pharmaceutical firms participating in the 35th All-India Medical Conference at Cuttack in December, 1958. Accommodation, available only after the 1st December, 1958, can be booked if charges are paid in advance by M.O. or Crossed cheques to the Hony. Treasurer, XXXV All-India Medical Conference (Office—S.C.B. Medical College Compound, Cuttack-1) before the 15th November, 1958. Transport facilities will be available on State Government rates.

Rates for Accommodation

Boarding and Lodging

(A) Outside the Conference campus (at Bhubaneswar) : Type I—Rs. 32/- to 40/- per day.

(B) Inside the Conference campus : Type II—(a) Single (Male only) Rs. 20/- per day. (b) Double (Male only) Rs. 35/- per day. (c) Double (Family) Rs. 30/- per day. Type III—Dormitory type (Male only) Rs. 12/- per day.

Lodging only

Type IV—Dormitory type (Male only) Rs. 6/- per day. A child below 10 years will be charged Rs. 5/- per day.

I MAHARASHTRA TERRITORIAL MEDICAL CONFERENCE, 1958, DHULIA

The 1st Maharashtra Territorial Medical Conference will be held at Dhulia on 7-9 November, 1958. Dr. R. N. Chaudhari of Akola has been elected the president of the Conference.

JOURNAL OF THE
INDIAN MEDICAL ASSOCIATION

CALCUTTA, OCTOBER 16, 1958

PROBLEM OF ORAL CANCER IN INDIA

The greater incidence of cancers of the oral cavity in certain parts of this country has been known for a number of years. This has been variously attributed to the distinctive local habits and environmental conditions in these regions.

An association between the oral cancers and the frequent use of tobacco by the patients was suggested in the early part of this century[1, 2, 3]. In 1933[4] an increased incidence was reported from Travancore and tobacco chewing with betel and areca nuts was considered the probable cause. This was subsequently confirmed[5].

A survey of the hospital records in the country was undertaken and a greater frequency of oral cancers in Madras and Bombay was reported[6, 7, 8]. Similar high prevalence of oral cancers in Andhra was also reported[9]. This frequency was particularly due to the lesions of the palate now commonly referred to as "Chutta cancer". A tentative relationship between this type of cancer and the frequent habit of smoking the cigar with the lighted end inside the mouth was suggested. A similar observation was also reported in 1945[10]. The "Chutta cancer" has now been established to be due to this habit of reversed cigar smoking.

Oral cancers constitute the largest single group (35·9 per cent) at the Tata Memorial Hospital, Bombay[11]. Tobacco chewing and smoking habits of the patients in Bombay were also studied[12] and it was found that the habit of chewing was associated with cancer of the buccal mucosa, alveolus, anterior part of the tongue and palate ; that the combination of smoking and chewing was associated with cancer of the base of the tongue and hypopharynx ; and that smoking alone was associated with cancer of the oropharynx, especially the tonsil.

The greater frequency in Western Uttar Pradesh and the possible relationship with the use of Mainpuri tobacco was suggested in 1953[13]. The recent studies[14] show a remarkably high incidence of oral cancers in the Western districts of Uttar Pradesh. They form 26·79 per cent of all the malignant tumours studied at the Pathology Department, S. N. Medical College, Agra, during 1948-56. This preponderance has been correlated to distinctive environmental and local habits of the population. Of the patients studied, 82·2 per cent used tobacco. An appreciably large group (74·1 per cent) used a particular brand of tobacco often referred to as "Kurari" of Mainpuri.

Such critical studies of the tobacco habit provide presumptive evidence of the existence of a substance or substances in the tobacco which may initiate or promote the production of cancer at the sites of prolonged contact in the oral cavity. However the study of the constituents of the tobacco does not furnish a ready explanation to this effect. 3 : 4 benzpyrene produced in the tobacco smoke is probably the result of the combustion of tobacco and is unlikely to be present in the tobacco leaves.

Experimental work on cancer has conclusively shown that dependence on a single or simple explanation for the aetiology of cancer is likely to lead to wrong deductions. That environmental factors do contribute to a particular cancer incidence is true, but this is not a complete answer to the understanding of the problem of cancer of the buccal cavity. In the absence of the experi-

[1] NIBLOCK, W. J.—*Indian M. Gaz.*, **37** : 161, 1902.
[2] BALARAM, A. P.—*Ibid*, **37** : 414, 1902.
[3] MEGAW, J. W. D.—*Ibid*, **40** : 163, 1905.
[4] ORR, J. W.—*Lancet*, **2** : 575, 1933.
[5] SOMERVELL, T. H.—*Brit. J. Surg.*, **32** : 35, 1944.
[6] NATH, V. AND GREWAL, K. S.—*Indian J. M. Research*, **23** : 147, 1935.
[7] *Idem—Ibid*, **24** : 633, 1937.
[8] *Idem—Ibid*, **26** : 785, 1939.
[9] KINI, N. G. AND SUBBARAO, K. V.—*Indian M. Gaz.*, **72** : 677, 1933.
[10] KHANOLKAR, V. R. AND SURYABAI, K. V.—*Arch. Path.*, **40** : 351, 1945.
[11] KHANOLKAR, V. R.—*Acta De L'Union Internationale Centre Le Cancer*, **6** : 881, 1950.
[12] SANGHVI, L. D., RAO, K. C. M. AND KHANOLKAR, V. R.—*Brit. M. J.*, **1** : 1111, 1955
[13] HALDAR, P. K.—*Indian J. Radiol.*, **7** : 130, 1953.
[14] WAHI, P. N., SAXENA, S. N. AND WAHI, PASHPATI NATH —*J. Indian M. A.*, **31** : 309, 1958.

mental data a cause-and-effect relationship between the oral cancers and the habit of tobacco chewing or smoking cannot be established.

The importance of epidemiological studies in cancer research has been amply proved, but a further approach to the problem probably concerns the study of the systemic factor or factors. The significance of systemic factors in cancer incidence was stressed and a law was accordingly postulated[15]. This law implies that "the mere eradication of the environmental factors causing a particular cancer may not be so fruitful until the underlying systemic factors remain". These probably include the factor of individual or tissue susceptibility and such conditions that result in the production of precancerous lesions of the oral cavity.

It was remarked that deficiency of vitamin A induces hyperkeratosis of the oral mucosa and this predisposes to the subsequent development of cancer[16]. An attempt was made to show some relationship between the precancerous lesions of the mouth and avitaminosis B[17]. It was observed that the excretion levels of thiamine, riboflavin and nicotinic acid and its derivatives in oral cancer patients and in persons with degenerative and chronic inflammatory lesions in the mouth without any histological evidence of cancer, were low, compared to the excretion levels in healthy controls[18]. Signs of thiamine deficiency in oral cancer patients were also noted[18]. In a recent study[19], a low urinary output of riboflavin and a lowered mean basal excretion level of thiamine in oral cancer patients have been reported.

There are thus, in cancer of the mouth, as probably in any other cancer, positive and negative aetiological factors. The study of the possible existence and chemical composition of the carcinogen in the substances which are chewed is an important step towards the elucidation of one such positive factor. Many other varieties of positive factors which may either precipitate or may predispose to the development of oral cancer, will however, be studied. The significance of negative factors in cancer of the mouth is beginning to be recognised. The incidence of oral carcinoma bears a direct relationship to economic status, as pointed out elsewhere[14] in this issue. Undoubtedly, dietary deficiency, particularly of vitamins A and B, is one of the factors responsible for this relationship. Khanolkar's work (vitamin B excretion in oral cancer patients—Abstracts of the Fourth International Cancer Research Congress) on vitamin B deficiency is thus interesting. Leukoplakic patches in the buccal mucosa are known to precede buccal cancers. Vitamin A deficiency is known to lead to metaplasia directed towards stratified keratinised epithelium. This may be looked upon as the easiest type of structural pattern of basal cells to produce and maintain a reaction to adverse conditions. The metaplasia caused by a deficiency of vitamin A might be a predisposing ground in the oral mucosa for tobacco to act as a carcinogenic agent. Studies on vitamin A excretion in tobacco chewers with or without oral cancers[14] are thus likely to lead to important results.

Such considerations of positive and negative factors concerned in the pathogenesis of cancer of the mouth point to the fact that this form of malignant disease is, to a peculiar degree, susceptible to prevention. Such studies of the role of environmental factors in the aetiology of cancer should prove extremely useful from the public health point of view, as these will help in assessing the contributory role of hereditary and environmental factors in the aetiology of cancer in man. It must however be remembered that the fact that environmental factors do contribute to a particular cancer incidence cannot be denied but this is not the whole answer to the understanding of cancer of the buccal cavity. Study of the possible presence of chemical carcinogen in the tobacco is as important.

[15] KRAMER, W. C.—*Z. Krebsforoch.*, **34** : 531, 1931.
[16] STEWART, M. J.—*Lancet*, **2** : 565, 1931.
[17] MARTIN, H. R. AND KOOP, K. L.—*Ad. J. Surg.*, **57** : 195, 1942.
[18] WARAVDEKAR, V. S., NANGAONKAR, V. C. AND KHANOLKAR, V. R.—*Acta De L'Union Internationale Centre Le Cancer*, **6** : 1017, 1950.
[19] SATHE, V. R., TALAGRI, V. R., KHANOLKAR, V. R. AND PANSE, T. B.—*Indian J. M. Research*, **45** : 401, 1957.

CURRENT TOPIC

MEDICAL COUNCIL OF INDIA

Presidential address by Dr. C. S. Patel, at the 49th session on 7th April, 1958:

Under the direction of your Executive Committee, periodical inspections due at the Universities of Utkal, Gauhati and Poona were carried out during 1957. The inspectors' reports together with the observations of the Gauhati University and the recommendations of the Executive Committee are being placed before you. The observations of the Poona University are awaited yet. The inspection report of the Utkal University when received, will be forwarded to that University for its observations. Periodical inspections due during 1958 at the Universities of Punjab, Rajputana and Bihar as also at the State Medical Faculty of West Bengal have also been arranged. The facilities for under-graduate teaching and the standard examination at the Kasturba Medical College, Manipal/Mangalore, affiliated to the Karnatak University were scrutinised by the Council inspectors during the month of December, 1957, and the reports of the inspectors are being forwarded to the University for its observations, on receipt of which, the matter will be considered by your Executive Committee.

The visitors of the Council have also inspected the existing facilities for teaching at the following colleges:

Name of the college	University
(1) Madurai Medical College, Madurai	Madras University.
(2) Bankura Sammilani Medical College, Bankura	Calcutta University.
(3) Bangalore Medical College, Bangalore	Mysore University.
(4) G. S. V. M. Medical College, Kanpur	Lucknow University.
(5) Gandhi Medichl College Hyderabad, and (6) Government Medical College, Aurangabad	Osmania University.
(7) Guntur Medical College, Guntur.	Andhra University.
(8) Christian Medical College, Ludhiana, and (9) Government Medical College, Patiala	Punjab University.

The Prince of Wales Medical College, Patna, and Darbhangn Medical College, Laheriasarai, have been inspected with regard to the students admitted there from the Ranchi Medical College, Ranchi, which is going to be affiliated to the Bihar University ultimately.

The visitors' reports have been forwarded to the Universities concerned for their observations. The visitors' report in respect of Madurai Medical College together with the observations received from the Madras University is being placed before your Executive Committee. The observations from the remaining Universities are being awaited. At the instance of your Executive Committee, I, accompanied by the Secretary of the Council, visited the medical colleges in Andhra Pradesh, viz., the Osmania Medical College and the Gandhi Medical College at Hyderabad, the Guntur Medical College, Guntur, and the Andhra Medical College, Visakhapatnam. I have made various suggestions to the authorities concerned for further improvements in the standard and the quality of teaching especially by starting research in each and every department of the medical colleges. I am happy to observe that these colleges have maintained a very good standard.

I am sure, you are aware that a new University has been established at Ujjain, known as Vikram University and some of the institutions which had been affiliated to the Agra University previously have now been affiliated to this new University. The qualifications granted by the Agra University to the students receiving training at Gwalior and Indore medical colleges were recognised by us, but in view of the fact that these colleges have now been affiliated to the new University, it is necessary for us to reinspect' the teaching facilities available at the affiliated institutions and the standard of the under-graduate and the post-graduate examinations conducted by the University.

I am happy to inform you that the Government has intimated to us that a number of post-graduate qualifications, which we have recommended to them, are under their serious consideration and in course of time these post-graduate medical qualifications referred to them, would be approved and included in appropriate schedules when the new Act of 1956 would come into force.

I am sure it will give you great pleasure to note the spirit of co-operation shown by most of the Indian Universities regarding such problems as standard of qualifications, standard of examinations, etc. Sometimes, however, a few Universities have shown a lack of promptness in sending back their observations on our inspection reports in good time. This has, in turn, caused a further delay in recognising the qualifications awarded by them. I hope that such incidents, though few, will not be repeated in the future. The Universities will do well to bear in mind the fact that though the number of medical colleges is on the increase in the country, at the same time it is to be regretted that the sponsors, whether private bodies or the Government, have opened the institutions in haste without adequate provision of the necessary training facilities. The inadequacy of the arrangements is all the more surprising as this Council had deputed its visitors sufficiently early to advise the sponsors on the minimum requirements of a medical college. This Council had advised some of the new colleges to postpone their decision to start the college until certain minimum facilities were provided but the advice was disregarded in some cases. This has led to repeated inspections which are misunderstood in certain quarters. It is my fervent hope that this matter will be looked upon in a constructive light by all the authorities concerned and that the progress of medical education in the country will not have to suffer in any way due to such factors.

A report on some post-graduate medical qualifications of Poona University was placed before you at the last meeting but in view of the glaring defects pointed out,

the Executive Committee had decided to reinspect. We have also requested the University to take urgent steps to remedy the deficiencies pointed out by inspectors in their previous reports. The decision of the Executive Committee in this respect was conveyed to the University with a request to inform us about the dates of the next examinations so that the authorities of the Council may appoint inspectors well in time so as to get their consent and also their confirmation about the suitability of dates. The University of Poona informed us very late, just before the examination, hence the inspection could not be arranged in time. Subsequently, it was made clear to them that unless the deficiencies pointed out previously have been remedied and the recommendations implemented, no useful purpose would be served by re-inspection. A lengthy correspondence ensued as a result. The University of Poona and the State Government have now forwarded some information regarding the improvements that they have carried out. The matter is at present receiving our urgent attention.

You are aware that the Executive Committee has been considering the question of the recognition of the post-graduate medical qualifications granted by the College of Physicians and Surgeons of Bombay. In the meantime, it has been brought to the notice of the Executive Committee that this College has awarded Honorary F.C.P.S. diploma to a number of medical men recently and hence the Executive Committee had appointed a Sub-Committee to look into this recent development with a view to consider whether the qualifications granted by the College of Physicians and Surgeons of Bombay, should be henceforward recommended to the Government for inclusion in the schedules or otherwise. The Sub-Committee has not yet met and the Executive Committee has not considered it desirable to carry out the inspection of the remaining post-graduate qualifications awarded by the College of Physicians and Surgeons of Bombay till the report is available and the final decision taken.

The following qualifications which have since been recognised by this Council and included in Schedule I, have been referred to the General Medical Council of United Kingdom for their consideration and their reply has been received :

M.B., B.S., Agra University,
M.B., B.S., Kerala University,
M.C.P.S., College of Physicians and Surgeons of Bombay.

With reference to M.B., B.S. qualification of the Agra University, the General Medical Council has replied that it has been pleased to accord recognition with effect from the 1st March, 1955, instead of March 1953, when the first batch of students from M.G.M. Medical College, Indore, was awarded a degree. The General Medical Council, under my direction, was approached again for reconsideration to accord recognition with retrospective effect, i.e., from March, 1953. The General Medical Council, thereafter, has intimated that it would not be justifiable for it to depart from its decision.

The report of the recent inspection of Osmania University submitted by the Council visitors is being considered by the Executive Committee. This inspection was carried out in order to ensure the rectification of the defects pointed out by the Inspectors previously, so that there may not be difficulty for the recognition of the qualification by the General Medical Council. The General Medical Council will be approached as soon as the Executive Committee comes to a final decision regarding this matter.

The recognition of the M.B., B.S. degree of the Delhi University was a subject of debate in this house a few years ago and you are aware that there was a proposal to the effect that this degree might cease to be a recognised qualification from a particular date. You are very well aware of the events that have taken place since then. You also know that the Council has not yet received the required information from the University and the Government of India in connection with the defects pointed out by the inspectors in April, 1956. Hence, the Executive Committee has not come to any decision on this subject. The Council has not been able to approach the General Medical Council of United Kingdom for retrospective recognition of the degree, as the matter between the Delhi University and the Council has not been finally settled.

I am glad to inform you that the General Medical Council of United Kingdom has intimated that it has recognised the qualification of M.C.P.S., granted by the College of Physicians and Surgeons of Bombay after 30th April, 1944, to persons who have undergone a course of study at the Grant Medical College, Bombay, the G. S. Medical College, Bombay, and the Topiwala National Medical College, Bombay.

It is clear from what I have stated above that the Council will have to approach the General Medical Council for clarification and insistence of recognition of M.B., B.S. degree of the Agra University with retrospective effect in respect of M. G. M. Medical College, Indore.

As regards the M.C.P.S. students from all over India, though very few in number take advantage of receiving this qualification, yet recognition of M.C.P.S. by the General Medical Council in a restricted manner will not help the students pursuing their degree course in other medical colleges.

With reference to your recommendation made at the last meeting as regards the recognition and inclusion in the 1st Schedule of the diploma of "Medicine de 1" Ecole de Pondicherry, granted by the French Medical School, Pondicherry, the Central Government have intimated that since the Indian Medical Council Act, 1933, does not at present extend to Pondicherry, the said diploma could not be included in the 1st schedule and instead, it might be included in the 2nd schedule. The recommendation of the Executive Committee in this regard is being placed before you.

Your recommendations regarding the recognition of certain post-graduate medical qualifications granted by the Universities of Agra, Poona and Rajputana indicating the names of medical colleges where the instructions are imparted, were forwarded to the Central Government. The Central Government have opined that under the Indian Medical Council Act, 1933, the name of the University alone can be mentioned in the schedules. It

has been added that any restriction limiting the benefits of the recognised qualifications to a particular college is also likely to be challenged as discriminatory and offending the provisions of Article 14 of the Constitution of India. In view of this, the Government have invited the revised recommendations of the Council in this regard. The Executice Committee has given careful thought to this question *vis-a-vis* the maintenance of the minimum standard of medical education in the country in respect of some sort of distinction being made between the approved and the non-approved medical colleges. Its recommendation is for your consideration.

The matter regarding modification of the entry in the 2nd schedule to the Indian Medical Council Act, 1956, relating to the recognition of medical qualifications granted in United Kingdom in view of the Medical Act, 1956, of United Kingdom, was referred to the General Medical Council. An enquiry was made as to whether they would be prepared to recognise the Indian qualifications included in the 1st schedule in the same manner as the British qualifications included in their third schedule would be recognised in India by virtue of the proposed amendment relating to the entry in respect of United Kingdom in the 2nd Schedule to the Indian Medical Council Act, 1956. In reply, the General Medical Council has intimated that it would not be possible for it to discharge its duty properly except by continuing the procedure of scrutinising the inspection reports in each case and deciding on individual merits, which has been followed hitherto in regard to the recognition of Indian qualifications. The matter is being considered by your Executive Committee.

You were informed at the last meeting about the progress of the negotiations with certain countries regarding establishment of reciprocity in the matter of mutual recognition of medical qualifications. In pursuance of your recommendation regarding recognition in India of medical qualifications granted in Victoria subject to similar recognition being accorded in that country to our 1st scheduled medical qualifications, the Government of India had issued the necessary Notification in this regard. The Indian High Commissioner in Victoria was also informed by the Government of India for necessary action regarding the recognition of Indian qualifications by Victoria Medical Board. In the meantime, Sir Peter MacCallum, Chairman of Australian Red Cross Society was here and under my direction, the Secretary had discussed the matter with him. Intimation has now been received that the Medical Board of Victoria has decided that the holders of Indian medical qualifications included in the 1st schedule would be recognised in Victoria as eligible to be registered as legally qualified medical practitioners of Victoria as from and inclusive of 5th November, 1957, being the date upon which the 2nd schedule was amended to provide for the recognition of the qualifications, granted in Victoria, for purposes of general medical practice in India.

As regards reciprocity with New Zealand, your Executive Committee re-iterated its previous decision to entertain reciprocity on direct basis and the New Zealand Medical Council has been requested to intimate if it is prepared to establish reciprocity on direct basis unconditionally.

In reply to our letter to the Medical Board of South Australia for mutual recognition of medical qualifications, the Board informed us that it would continue the practice of registering only those Indian qualifications that are accepted by the General Medical Council of United Kingdom. As directed by the Executive Committee, the Board had then been informed that this Council would entertain reciprocity on direct basis only. Since many students from South Africa come to India for medical study and as there are many matters of mutual interest between the two countries, the South African Medical Board has been requested to consider the desirability of reciprocity on direct basis. On receipt of its reply the matter will be further considered.

On a reference from the Bombay University regarding the exemption of the condensed course students from post-examination training of one year, the matter was placed before you at the last meeting and as decided, all the Universities were informed that our recommendations on professional education with regard to post-examination training for regular M.B., B.S. students be not enforced with regard to condensed course students going for M.B., B.S. degree, provided they possess a satisfactory record of professional work. In the meantime, certain further points have been brought to the notice of the Executive Committee in this connection and therefore the final decision has not been taken thereon.

The comments and suggestions received from various Universities on the draft syllabus for the study of preventive and social medicine have been considered by your Executive Committee and a Sub-Committee has been formed to examine the draft syllabus in the light of views received from the Universities. On receipt of the report, the matter will be further considered by your Executive Committee and put up before you for your final decision.

Under the special resolutions so far 30 Indian Citizens holding non-scheduled foreign qualifications have been permitted registration with the State Medical Councils and likewise 146 foreigners employed in the medical institutions, provided the latter do not engage themselves in private practice for personal gain.

On a reference from the Bombay Medical Council raising some points with regard to the Code of Ethics which has been adopted by the Council at its meeting held on 14th/15th November 1952, your Executive Committee considered the matter and as directed, the State Medical Councils have been requested to intimate their views as to whether any medical practitioner should regard any drug, apparatus, instrument or appliance which might have been discovered by him and become patent, as his personal property and should derive any commercial benefits from such patents. So far replies from four State Medical Councils have been received. On receipt of the remaining replies, the matter will be further considered by your Executive Committee.

I may inform you that I was invited by the Ministry of Health to attend a meeting of the Family Planning Board. All of you are aware of the urgency and the

magnitude of the problem of over-population in our country. Social and religious prejudices come in the way of relief afforded by medical science, but if we stop and consider for a while, we cannot but realise that when our population is increasing by five to six million every year, something has to be done and done quickly in order to avert a major crisis in our national stability. Tremendous efforts are being made to place our economy on a self-sufficient basis and to raise the standard of living of the people. The good effects of these attempts will be nullified if we do not adopt family planning, the need for which is very obvious and urgent. Family planning has to be tackled on a national basis and gigantic efforts will have to be made to cultivate public consciousness in this matter. I am of the firm opinion that the medical profession can play a very important role in solving this vital problem of our nation by propagating and extending the means at hand to implement family planning. The medical students of today are the medical practitioners of tomorrow and it will be a far-sighted policy to introduce family planning as a subject in our curriculum. I am convinced that this training will ensure the health and the prosperity of our future generations. It is with this intention that I have placed my views before you for your considered opinion and action. I further venture to say that medical students during their internship should take upon themselves the responsibility of acquainting the population regarding family planning over and above the regular work assigned to them.

The Government of India has forwarded to us for information the resolutions adopted at the Conference on Medical Education, which was convened at New Delhi on 15th March, 1958, to discuss the ways and means for increasing medical teachers in the country, and other matters relevant to the subject. I was invited to this Conference.

I understood from the trends of discussions at this Conference that about a couple of years ago, it was decided that the Centre would give subsidy to State Governments for setting up full-time teaching units in Medical Colleges, and this Conference regretted to note that no progress had been made so far. Importance of the subject was re-iterated at this Conference, and it was proposed that the Central and State Government should take immediate measures to set up as many full-time teaching units in Medical Colleges as possible, while on the other hand, I understand now that some of the States even though they have been willing to accept this subsidy granted by the Central Government, no allocation has been made available to them so far.

This question of giving subsidies for the full-time teaching teams in Medical Colleges was also discussed a few years ago in the Central Health Council, but so far the scheme of granting subsidy was not implemented, either due to paucity of funds or lack of efforts in this direction. I trust the Central Government will be too happy to allocate subsidy and the State Governments will be willing to avail of this in very near future and implement this far-sighted reform. Since only 3 years are now left in the second five year plan, I hope, steps would be taken to institute the new revised scales of pay all over the country without further delay in order to improve the quality of teaching. There is also an absolute need for taking steps to increase the number of teachers to staff the Medical Colleges. There is already dearth of teachers in the existing Medical Colleges. New Colleges are coming up every year and hence the dearth of teachers will be still greater. The salary scales, recommended by the Conference for Professors, Readers, etc., would not attract suitable persons with adequate qualifications and teaching experience to devote themselves to a teaching career. Even at present the scales offered by some northern States in India are much better than those suggested by the Conference. The scales suggested at this Conference are, however, likely to be revised in the 3rd five year plan, and hence the shortcomings, whatever they are, in the recommendations now made, will be overcome when this matter will be finally considered a few years hence. The States, which are willing to co-operate with the Central Government and have already asked for the subsidy should be given the same immediately in order to implement the recommendations for employing full-time, non-practising teaching teams. The rest of the States should be given the subsidy as and when asked for.

The building for the Council is now ready and it is hoped that the Government will hand over the same to us in very near future. I trust the Council will find its new surroundings more comfortable and spacious.

NOTES AND NEWS

British Medical Association

The Sir Charles Hastings Clinical Prize Competition is established by the Association for the promotion of systematic observation, research and record in general practice. The Competition has been extended by the addition of a second prize known as the Charles Oliver Hawthorne Clinical Prize.

Enquiries and entries for the prizes must be sent to the Secretary, British Medical Association, B.M.A. House, Tavistock Square, London, W.C. 1, not later than 31st December, 1958.

The 1958 Prize Essay Contest

The American College of Chest Physicians is offering three cash awards to winners of the 1959 Prize Essay Contest. First prize, $500·00—second prize, $300·00—third prize, $200·00. Each winner will also receive a certificate. The Contest is open to *undergraduate* medical students throughout the world. Essays may be written on any phase of the diagnosis and treatment of chest diseases (cardiovascular or pulmonary). Contest closes on April 15, 1959. For application and further information, please write: American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois, U.S.A.

Dr. Waksman Retires

Dr. Selman A. Waksman, a Nobel Prize Winner in 1952 and a co-discoverer of Streptomycin has been retir-

For the 'obstinate' case of vitamin deficiency

MULTIVITAPLEX FORTE DUMEX

Massive dosage in easy-to-take capsule form

COMBINING all the essential vitamins in optimum concentrations, MULTIVITAPLEX FORTE Dumex is the ideal formula for refractory cases of vitamin deficiency. Moreover, because of the pharmacodynamic action of massive doses of vitamins, the preparation has proved of great value in the treatment of disturbances not etiologically related to vitamin deficiency states.

MULTIVITAPLEX FORTE Dumex is indicated in all cases calling for massive-dosage multivitamin therapy. It is presented in the form of easy-to-swallow capsules, the dosage varying from one to two capsules daily according to the condition, severity of the deficiency and other factors. MULTIVITAPLEX FORTE Dumex is available in bottles of 20 and 100 capsules.

DUMEX

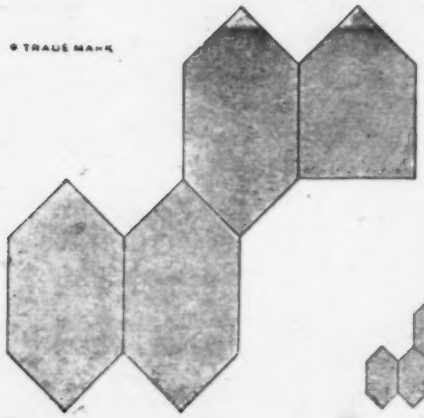
DUMEX PRIVATE LIMITED
Wavell House, Ballard Estate, Bombay 1

DX. 7144

a new, superior corticosteroid !

LEDERCORT* Triamcinolone Lederle

* TRADE MARK



SUPERIOR POTENCY—
For greater clinical effectiveness... with the plus value of fewer side effects :

- no edema • no hypertension
- no psychosis • no weight gain
- no potassium depletion

Also, because of the nature of LEDERCORT and its lower dosage†, there is a lower incidence of other important side effects associated with corticosteroid therapy:

- peptic ulcer • osteoporosis
- epigastric distress • diabetic state
- Cushinoid "obesity"

Because of its lower dosage, LEDERCORT Lederle makes prolonged therapy possible at less cost and with greater ease of patient management.

LEDERCORT is indicated in:

- Rheumatoid arthritis • Bronchial asthma
- Dermatoses • Allergic disorders, and the many other conditions in which corticosteroids have proved to be beneficial

†Clinical tests show that in many instances only about ⅔ of the dose of prednisolone is required.

available in Bottles of 10 tablets, Scored. 4 mg. per tablet

LEDERLE LABORATORIES (INDIA) PRIVATE LIMITED
P. O. B. 1994 BOMBAY 1

2 Rauvolfia PRODUCTS

SERPINA

The World's Pioneer *Rauvolfia* Hypotensive and Cerebral Sedative.

COMPOSITION:
Each tablet contains 4 mg. of the total Alkaloids of *Rauvolfia* serpentina (Benth)

DOSAGE: ½-2 tablets b. d.

NARDYL

Allays tension, restores tranquillity. Useful in psychosomatic disorders and in Auricular fibrillation.

COMPOSITION:
Each tablet contains in grains:

Rauvolfia serpentina	..	2.00
Hydrocotyle asiatica seed	..	0.25
Asparagus racemosus	} ää	0.50
Withania somnifera		
Exts. Nardostachys Jatamansi		0.50
Evolvulus alsinoides	} ää	0.20
Eclipta alba		
Herpestis monniera		

DOSAGE: 1-2 tablets t.d.s.

THE HIMALAYA DRUG CO., 251, D. Naoroji Road, BOMBAY 1 (India).

ing from his position as Director of the Rutgers University Institute of Microbiology. Dr. J. Oliver Lampen, who has been associated with the Squibb Institute of Medical Research in New Brunswick N.J., has been named as his successor.

Gastroenterological Convention

The 23rd Annual convention of the American College of Gastroenterology will be held at the Jung Hotel in New Orleans, La., on October 20, 21, 22, 1958.

On October 23, 24 and 25, immediately following the Convention, the Annual Course in Postgraduate Gastroenterology, will be held at the Jung Hotel and in the Auditorium of the Louisiana State University School of Medicine.

Further information concerning the Postgraduate Course and Mexico Regional Meeting may be obtained by writing to: American College of Gastroenterology, 33 West 60th Street, New York 23, N.Y.

Cats, Dogs, Parrots Possible Tuberculosis Carriers

Cattle are becoming much less important as a source of transmission of tuberculosis to man in many countries. At the same time, public health authorities are paying more attention to other animal sources of tuberculosis infection, notably dogs, cats, parrots, goats, pigs and monkeys.

During the last few years, rapid progress in the control of bovine tuberculosis has been reported from Portugal, United Kingdom, German Federal Republic and Switzerland. In the Scandinavian countries; the Netherlands and the United States of America, this disease is now practically non-existent, mainly due to systematic application of the tuberculin test in cattle and slaughter of all animals reacting to this test.

This progress was noted with satisfaction by the Joint Expert Committee on Zoonoses (animal diseases transmissible to man) of the World Health Organization (WHO) and the Food and Agriculture Organization (FAO) during a recent meeting in Stockholm. In countries where bovine tuberculosis is still an important problem, the Committee noted, approximately 10 per cent of human infections are derived from cattle.

The discussions at the meeting revealed that dogs can become infected with either human or bovine tuberculosis. Cats are resistant to the human type but susceptible to the bovine type. Parrots can contract human tuberculosis. Monkeys are highly susceptible to both types.

Animals, however, can also become infected from humans, and many cases of re-infection of tuberculosis-free cattle with human or bovine type strains have been traced to this source.

Rajkumari Amrit Kaur Visits Rumania

Rajkumari Amrit Kaur, President of the Indian Red Cross and the Vice-President of the League of Red Cross Associations, recently visited Rumania on the invitation of the Central Committee of the Rumanian Red Cross.

On September 11, 1958, the President of the Council of Ministers, Chivu Stoica, received Rajkumari Amrit Kaur, and expressed his satisfaction to meet a representative of the international organisation of the Red Cross.

At a meeting of 2,000 activists of the Red Cross, Dr. Octavian Belea, the President of the Central Committee of Red Cross in Rumania, offered Rajkumari Amrit Kaur, the insignia for Recognition in the Red Cross Work, of the Central Committee of the Rumanian Red Cross.

Improving Standards of Health

Vice-President Dr. S. Radhakrishnan emphasised the urgent need for the attainment of mental health, while stressing the importance of improving the standards of health in countries of the South East Asian region.

Dr. Radhakrishnan, who was inaugurating the 11th session of the World Health Organisation regional committee in New Delhi, said, "Unless we raise the standard of health and efficiency it will not be possible to raise the agricultural or industrial output of the country". Delegates from nine South East Asian countries, including India, attended the week-long session.

Displaced Tuberculous Patients in West Bengal

Medical boards are being set up in West Bengal to examine displaced T.B. patients in camps and outside camps for determining the quantum and nature of assistance to be provided to them.

This decision has been taken following the findings of the Screening Committee indicating that some of the genuine cases were being deprived of the facilities.

Displaced T.B. patients in camps, who are at present being allowed special diet allowance of Rs. 2·50 per day will continue to recieve it unless the medical boards recommend its discontinuance. All the new cases will be allowed this allowance on the recommendation of the medical boards.

The State Government, which has been granted a sum of Rs. 50,000 for setting up these boards, will also arrange to examine the displaced T.B. patients residing outside camps to determine the quantum of expenditure. Such displaced patients get a monthly allowance of Rs. 20 in addition to the maintenance allowance of Rs. 45 for their families.

At present, adequate number of dispensaries or hospitals with provision of 541 beds for indoor patients have been provided in camps. So far, about Rs. 100 lakhs have been spent on health measures for the D. P.s, which include the provision of special diet allowance for patients, nutritional diet for expectant mothers and medical care in camps.

More Beds for Tuberculosis Cases

At least 500 new beds for T.B. patients will be available by the end of the current year in the Dhubulia T.B. Hospital of the West Bengal Government which is now under construction.

The new hospital will have 1,000 beds when it will be completed. The construction of the hospital is being finished speedily. After its completion about 4,000 beds

for T.B. patients will be available in the State Government hospitals.

Scheme for Oral Contraceptives

The Minister of Health, Shri D. P. Karmarkar in reply to a question in the Lok Sabha said that the Calcutta Bacteriological Laboratory had submitted a scheme for oral contraceptives for Government's consideration. The Minister of Health had already given a grant of Rs. 7,500 to Dr. S. N. Sanyal of the Calcutta Bacteriological Laboratory for research on metaxylohydroquinone as oral contraceptive in the male. The contraceptives were under test and results were awaited.

Government of India Ministry of Health Notification

No. F. 3-15/58-D., in exercise of the powers conferred by sub-clause (ii) of clause (b) of section 3 of the Drugs Act, 1940 (23 of 1940), the Central Government hereby makes the following amendment in the notification of the Government of India in the Ministry of Health No. 1-10/56-D dated the 20th October, 1956, namely :

In the said notification, for the words 'Chemical contraceptives' the words 'contraceptives except mechanical ones' shall be substituted.

CORRESPONDENCE

Medical Education in India

Sir, Dr. Dhown's letter (*J. Indian M. A.*, **31** : 265, Sept. 16, 1958)) has raised an issue of great importance in the field of medical education in India. It is really the duty of the Central Government to formulate a definite policy regarding the teaching and licensing. If each State is allowed to formulate its own policy, there will be a chaos in medical education, with ultimate neglect of all the systems. India is just getting over the threshold of international recognition in the field of medicine by the united effort of the Government, Indian Medical Association, I.C.M.R., medical bodies like the associations of different specialities, and the profession. Any half-hearted policy in medical education by the Government at this stage will hamper the progress of research. In the meantime no drastic changes in medical education should be allowed in the States.

In any practical approach to the problem, the following points should be insisted upon :

1. There should be one basic standard of medical education at the level of the present M.B.B.S. degree.

2. Medicine as the healing science of humanity is like any other science, say mathematics. There are no national sciences like Indian Medicine or American Mathematics. There may be regional concepts of approach, but the science is and will always remain one and indivisible.

3. Modern medicine can in no way minimise the importance of ancient medical systems which have served the suffering humanity in the best way they could, for centuries before the advent of modern medicine. Neither can the supporters of ancient systems undervalue modern medicine which is practised all over the rest of the world, and which is dynamically progressive.

An integrated course on the above principles is easily conceivable. It may not be to the taste of the protagonists of all cults; however, it can be made to incorporate the philosophy and the prime principles of most of them. Imparting of higher education in indigenous systems may be left to the recognised postgraduate institutions in each system. I request the Central Government to take up this matter immediately, and chalk out a firm and decisive policy without a bias, before medical progress in India is irreparably damaged. I am etc.

P. L. DESHMUKH, M.D.
Member of Faculty of Medicine, and Chairman of Board of Studies in Medicine, University of Poona.

Jayashree,
Deshmukhwadi,
Poona City.

REVIEWS

Morphologische, biologische und serologische Eigenschaften der Bartonellen—Von Priv.-Doz. Dr. R. Wigand, Hamburg. Mit einem Geleitwort von Prof. Dr. R. G. Nauck, Hamburg. 1958. VIII, 71 Seiten, 17 Abbildungen, Gr.-8°, kartoniert DM 7.80

Morphological, Biological and Serological Characteristics of Bartonellae (in German)—By Priv. Doz. Dr. R. Wigand, Bernhard-Nocht-Institute for Ships and Tropical Diseases, Hamburg, with a foreword by Prof. Dr. R. G. Nauck, director, B.-Nocht-Inst., Hamburg. VIII, 71 pp., 17 illustr., Georg Thieme, Stuttgart, 1958. DM 7.50.

Bartonellae can be recognised by being attached to erythrocytes and having a size between that of a large virus and the smallest bacteria. In man they are causing Oroya fever and verruga peruviana; in animals they are responsible for a latent infection which only after splenectomy becomes manifest as a more or less severe infectious anaemia, especially in rats and mice. They are so widely distributed that in every animal experiment involving haemopoesis, spleen etc., especially in small rodents, a bartonella infection has to be carefully excluded, lest the results be vitiated. The present investigations, carried out mainly with the electron microscope, made it quite clear that the haemobartonella group, pathogenic for animals, must be strictly separated from Bartonella bacilliformis, the causative organism of human infection. In addition to the morphological investigations, the natural history of infection and transmission have been examined. Experiments have been carried out about cultivation of haemobartonella muris, titration of its infectiveness and its response to chemotherapeutic treatment. To facilitate diagnosis and comparison with other organisms, a complement fixation test for animal pathogenic bartonellae has been worked out. The text has been divided into three chapters, dealing with the morphological, biological and serological investigations respectively; each of the chapters is

divided again into one section devoted to the "animal bartonellae" haemobartonella muris musculi and eperythrozoon coccoides, and one dealing with the human parasite bartonella bacilliformis. A classification of the bartonellae, a summary and an excellent bibliography comprising 247 references conclude this monograph which should prove very useful indeed to pathologists and haematologists working with laboratory animals.

Entzündung und Bluteiweifikörper—Von Priv.-Doz. Dr. H. Odenthal, Düsseldorf. Mit einem Geleitwort von Prof. Dr. F. Grosse-Brockholff, Düsseldorf. 1958. VIII, 115 Seiten, 32 Abbildungen, Gr.-8°, kartoniert DM 19.50.

Inflammation and Blood Proteins (in German)—By Priv.-Doz. Dr. H. Odenthal, 1st Med. Clinic, Medical Academy, Duesseldorf; with a foreword by Prof. Dr. med. F. Grosse-Brockhoff; director, 1st Med. Clin., Med. Academy, Duesseldorf. VIII, 115 pp., 32 illustr., Georg Thieme, Stuttgart, 1958. DM 19.50.

The aim of this monograph is to correlate cytological and structural with humoral reactions, accompanying inflammation. This task became necessary since antibiotics and sulpha drugs on the one side, corticosteroids, butazolidine, etc., on the other, provide so many new means to fight the cause of inflammation or reduce excessive manifestations. The first chapter deals with the methods used in these investigations, such as paper electrophoresis, estimation of fibrinogen and of C-reactive protein. The second is devoted to the blood protein reactions caused by inflammation. The primary changes, increase of fibrinogen and alpha-globuline as well as the appearance of C-reactive protein are wholly unspecific. The secondary reactions are unspecific too as far as activation of the reticulo-endothelial system, the undifferentiated mesenchymal cells and the slow rise of gamma globulin are concerned, but specific as far as they involve the appearance of antibodies. There follows a discussion of alterations of blood protein reactivity, of which the primary reactions are shown to occur whenever tissues are destroyed, and to be dependent mainly on the condition of the collagen mesenchymal tissue, whereas the requirements of the actively resorbing mesenchyma determine the secondary manifestations. Regarding the erythrocyte sedimentation rate, the author comes to the conclusion that fibrinogen increase determines the e.s.r. because it shows a strict correlation with the intensity of inflammation and its chronological phases and because it so strongly accelerates the sedimentation rate that it is almost independent of other blood alterations; nevertheless, the blood protein spectrum gives much more information about inflammatory diseases than the e.s.r. The correlations between cellular and humoral reactions in the blood are demonstrated by a number of diagrams, tables and formulas. The next 30 pages deal with therapeutirc effects on protein reactions, in particular of butazolidine and irgapyrin, salicylates, cortisone and ACTH, gold and x-rays. In an attempt to explain the principle of the various blood protein reactions, the author suggests that it is a manifestation of the same mesenchymal tissue activation as appears in wound healing, though differently localised. A good summary and a useful bibliography conclude this stimulating piece of clinical research.

Normale und pathologische Entwicklung des menschlichen Herzens : Ursachen und Mechanismen typischer und atypischer Herzformbildungen, dargestellt auf Grund neuer Befunde—Von Priv.-Doz. Dr. Kl. Goerttler, Kiel. 1958. VIII, 123 Seiten, 54 Abbildungen, Lex.-8, kartoniert DM 33.

Normal and Pathological Development of the Human Heart. Causes and mechanisms of typical and atypical heart formation presented on the basis of new findings by Priv. Doz. Dr. K. Goerttler, Kiel (in German). VIII, 123 pp., 54 illustr., Georg Thieme, Stuttgart, 1958. DM 33.

This is the third publication in a series of original contributions to normal and pathological anatomy, which on the Continent comprises all of pathology, edited by the heads of the anatomical and pathological institutes respectively, of the University of Kiel. It is not easy to do justice in a short review to a pioneer investigation on such a complicated subject as the development of the normal heart, not to speak of all the important congenital malformations. A survey of the author's results should give an idea of the rich fare offered in this slim volume. The significance of the various developmental factors is being worked out with special emphasis on the dynamic of the processes. Single parts of the heart cannot be analysed separately; metamery and division by septa are secondary phenomena after elongating and bending of an asymmetrically growing myocardial mantle tube. Venous and arterial heart sections develop mirror-like to each other. The author is convinced that even in primitive vertebrate hearts parallel and exchange switching of the blood is possible between a 'somatic' and an 'enteral' circulation. The quantitative switching of these circulations is being achieved by cranial displacement of the lung veins, obliteration of the anastomoses with the systemic veins and the development of cavo-pulmonal system. Spitzer's 'Venous Counter-rotation' has been confirmed. The formative cause of a cardiac malformation is a growth arrest of sections of the myocardial mantle which are at various periods particularly metabolistically active. Inversion and transposition mutually exclude each other, while typical and 'corrected' transpositions are closely related. The rules guiding normal development and malformation are the same. The differences have been pointed out between embryonal, foetal and postnatal cardiac diseases. The special teratology, covering some 75 pages, deals with all the disturbances during the primary, secondary, tertiary and quarternary period of cardiac development and shows how from each of them particular malformations result : from the secondary laevo- and dextro-cardia transposition of pulmonary artery and aorta, auricular septum defects, etc.; from the tertiary and quarternary errors, Ebstein's anomaly, Fallot's trilogy and Lutembacher's syndrome. Finally, anomalies of the heart-distant big vessels are deduced from haemodynamic conditions. As a supplement to the theoretical discussions, descriptions of 21 malformed hearts have been added. A good bibliography of German, English and French literature, an author and a subject index are reliable

guides to further reading and to using the monograph under review. Beautiful photographs and excellent line drawings facilitate the understanding of the often very difficult subject. This reviewer thinks that an English translation of this work, which is teeming with new ideas, would be a boon for embryologists, anatomists, pathologists and cardiac surgeons.

Internationales Symposion über klinische Cytodiagnostik —Vom. 1.—2. März 1957 in Erlangen. Herausgegeben von Prof. Dr. N. Henning und Priv.-Doz. Dr. S. Witte, Erlangen. 1958. VIII, 216 Seiten, 146 Abbildungen in 191 Einzeldarstellungen, Gr.-8°, kartoniert DM 34.

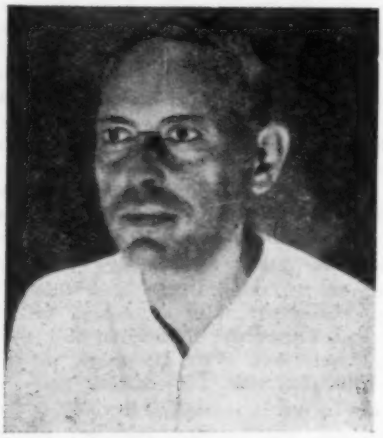
International Symposium on Clinical Cytodiagnostic, held at Erlangen, March, 1957 (in German).—Edited by Prof. Dr. med. N. Henning and Priv. Doz. Dr. med. S. Witte, Med. Univ. Clinic, Erlangen, VIII, 216 pp., 146 illustr. in 191 figures. Georg Thieme, Stuttgart, 1958. DM 34.

Cytologists, haematologists and technical experts in every kind of microscopy from Germany, Austria, Switzerland and one each from France, Spain, England and Holland, contributed very instructive papers to this conference on one of the youngest and most promising diagnostic methods. They have been arranged under three headings : general cytologic problems, microscopic technique and special cytodiagnostic. Of particular interest is a survey of cytochemistry, showing that so far no single reaction exists which proves malignancy; all of them have to be used in conjunction with morphological examinations. Special cytodiagnosis has been considered from every angle. The investigations cover the cytology of lymph nodes, spleen and serous cavities; liver and the gastrointestinal tract, including mouth and oesophagus, with special emphasis on the earliest diagnosis of cancer of the stomach, preferably already in the precancerous stage. Cell studies of bronchi, lung and mediastinum, the skeleton, mamma, thyroid and prostate and one paper on cytological diagnosis of bronchogenic cancer round off the fascinating reports, which considerably gain in value by a profusion of beautiful microphotos, which are so well reproduced that all the minute structures on which differentiation between normal and malignant cells is based, are clearly visible. Controversial points become sharply focussed in the discussions which are fully included. A subject index permits quick orientation. This valuable publication must be welcomed as a representative cross section of Europe's manifold contributions to cytological cancer diagnostic.

OBITUARIES

Dr. S. N. Bagchi

Dr. S. N. Bagchi died on July 16, 1958 at the age of 59. He was a member of Daltonganj Branch of I.M.A. for a long time. He served as an Assistant Health Officer under the Palamau District Board and after retiring from service set up practice at Daltonganj. He was a



DR. S. N. BAGCHI

man of amiable nature and always fought for the cause of I.M.A.

Dr. B. K. Dutta Joarder

Dr. Benoy Krishna Dutta Joarder who had been suffering from high blood pressure for the last few years died on 13-8-58, of cerebral haemorrhage. He was 52.

Dr. Dutta Joarder was born in 1906 and educated in the National Medical School (Calcutta) from where he qualified in the year 1932. He was in service for 11

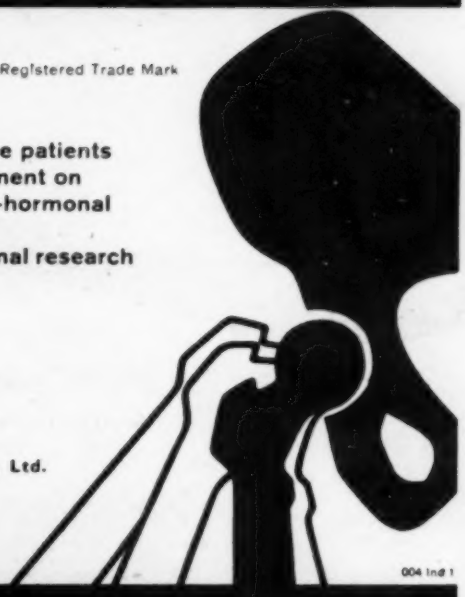
DR. B. K. DUTTA JOARDER

years. From 1948 he started private practice at Siliguri. A man of simple habits, he was interested in shooting, social work and sports and was highly popular in the town. He was a very active member of the Siliguri branch I.M.A.

Butazolidin Registered Trade Mark

3.5-Dioxo-1.2- diphenyl-4-n-butyl- pyrazolidine

Over the long term more patients maintain their improvement on Butazolidin-potent, non-hormonal antirheumatic agent
A product of Geigy original research



Manufactured in India by:
Suhrid Geigy Private Ltd.
Wadi Wadi, Baroda

Suppliers:
Suhrid Geigy Trading Private Ltd.
Express Building, E. Road,
Churchgate, Bombay-1.

004 Ind 1

in *Tropical Eosinophilia*

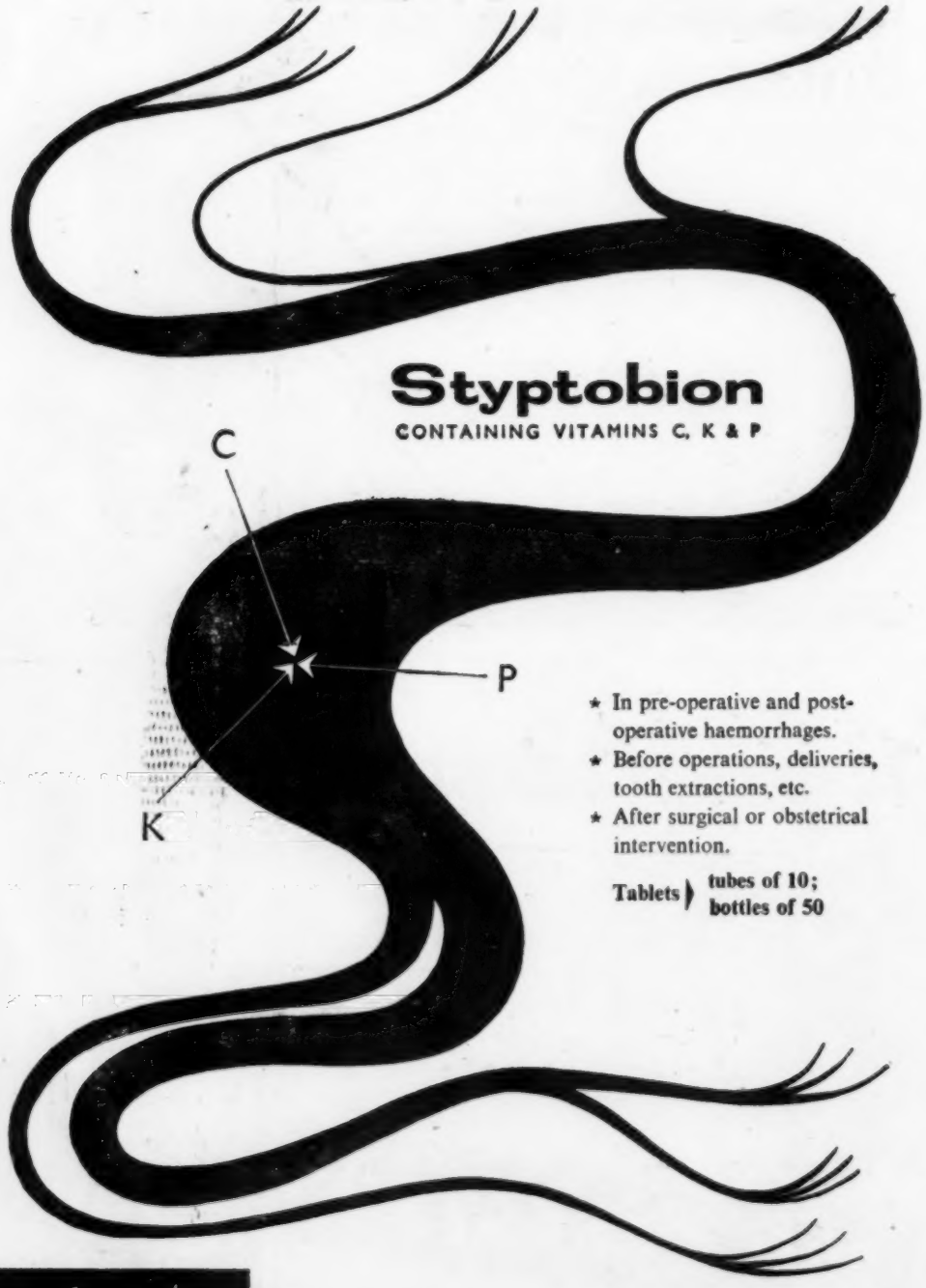
2 injections
of Diethyl Carbamazine Citrate

prompt response

absolutely safe

UNI-CARBAZAN

UNICHEM LABORATORIES
BOMBAY 26.



Styptobion

CONTAINING VITAMINS C, K & P

- ★ In pre-operative and post-operative haemorrhages.
- ★ Before operations, deliveries, tooth extractions, etc.
- ★ After surgical or obstetrical intervention.

Tablets tubes of 10; bottles of 50

E. Merck
DARMSTADT, GERMANY

SOLE AGENTS FOR INDIA
CAPCO PRIVATE LIMITED, E. MERCK DEPARTMENT
P. O. Box 1652, Bombay-1

EMY 5

SUPPLEMENT
Journal of the Indian Medical Association

Vol. 31, No. 8 CALCUTTA October, 16, 1958

V ANNUAL TERRITORIAL CONFERENCE, BOMBAY, 1958

The fifth annual conference of the Bombay Territorial Branch was held in Bombay on the 19th and 20th of April, 1958. The Union Minister of Health, Shri D. P. Karmarkar, inaugurated the conference.

Dr. R. B. Sathe, Chairman, Conference Organisation Committee in his welcome address, said inter alia that "the medical profession, will ever be prepared to give its fullest support and offer its sincere co-operation to the Government in all their schemes undertaken for the good and benefit of the peoples of our country.

Bombay Territorial Branch, with its three component branches, viz., the Bombay Branch, the West Suburban Branch and the Ghatkopar Branch, is one of the biggest Branches of the I.M.A., having about a thousand members. All the same, we are aware that a large number of practitioners in this city are still not our members. Efforts in securing their membership have resulted in a slow but steady increase. Let us hope for the day, when we can boast of cent per cent membership. And let us wish that happy day comes much sooner than anticipated.

We have, in this city certain important problems facing us. Being one of the biggest industrial centres of the country, with nearly 5 lacs of workers, the E.S.I. Scheme which is over three years old now, presented manifold difficulties from the commencement. Some of these have been amicably settled and a few more are yet to be tackled. The inclusion of families in the scheme has however been engaging the minds of all those concerned, but no solution seems to be forthcoming so far. The negotiations have reached a deadlock on the item of capitation fees for the family unit. Let us hope that the inclusion of family members in the Scheme which is really a longfelt want will not be wrecked on the rockbed of capitation fees and that some reasonable settlement will be arrived at ere long, acceptable to all.

The nationalisation of the insurance companies has brought in its trail several headaches to the profession. It has deprived a large number of medical men from being examiners for the L. I. C. Our negotiations with the authorities have resulted in only a few more medical men being taken up as examiners. We still strongly feel that all those who are entitled to examine insurance cases should be taken up and thus this injustice be removed.

The Territorial Conference, I am glad to say, has been attracting more members and larger audiences year after year. It provides a good meeting place for our members who otherwise find it difficult to spare time for such contacts. In addition, it offers them an intellectual fare of a high order. This is achieved by a two days' refresher course, highly useful in their daily practice, to keep them up-to-date. The only lapse in our programme has been the lack of discussions on the several medico-politcal problems affecting the medical profession. This lacuna, it is hoped will be filled up in our future conferences by the provision of some time for the discussion of those problems."

Dr. Mangaldas J. Shah presided over the conference. In his address he spoke as follows :

"It gives me great pleasure to begin my address by extending my hearty congratulations to our members who are recipients of special honours during the year.

The Bombay Territorial Branch of the Indian Medical Association was constituted in the year 1947 and consists of the Bombay Branch, the West Suburban Branch and of the Ghatkopar Branch. With the extension of the limit of Greater Bombay the Mulund Branch has joined us. It has on its roll 850 members. It is the premier medical association in Bombay dealing with various medical problems. It serves the need of academic medicine by frequent clinical meetings, lectures and demonstrations by its branches and by scientific papers at the annual conference. It also deals with the medico-social and the medico-political problems in full co-operation with its branches for local problems and with the central body of the Indian Medical Association on matters affecting the whole country. It is represented on various committees and bodies, e.g., E.S.I. Scheme's (a) Allocation Committee, (b) Pharmaceuticals; Anti-spurious drugs; Telephone Advisory Committee, Bombay Dist., and the Association is invited for opinion on various matters.

It is a long cherished wish of a large number of our members that the Bombay Territorial Branch should own its own premises in the form of a suitable building at a good spot in greater Bombay. One feels sure that both the Bombay State Government and the Bombay Municipal Corporation will be willing to help the association in acquiring a suitable plot of land. The members will be willing to contribute liberally towards the building fund which may be started during the year.

Medical Relief

Since independence both the Central and the State Governments have made great attempts towards control of diseases that have afflicted millions of our people. Malaria which used to take an annual toll of two million lives is so effectively controlled in Bombay that the teachers in medical colleges find it difficult to demonstrate to the students the presence of malarial parasites from the blood films of their patients. The B.C.G. campaign has a good response in Bombay and it is hoped that it will diminish the incidence of tuberculosis. The recent news that the Anti-filarial Campaign will be intensified on the west coast of India between Bassein and Surat is significant since it affects our state. It would be very desirable to include the coast-line of Greater Bombay in this anti-filarial project, and thus rid some of the Bombay suburbs of their mosquitoes and filariasis.

The Association records its appreciation of the method and the courage with which the Bombay State Government and the Bombay Municipal Corporation tackled the influenza pandemic. A special "Influenza Research Committee" was formed to study the influenza problem

as it affected the city of Bombay. A report of its findings was published and has been well received both in India and abroad. The Journal of American Medical Association published lengthy abstracts from the reports. Our Minister of Health Hon. Shri Kannamwar and Deputy Minister, Hon. Dr. Kailas are to be thanked for their far-sighted policy of seeking the co-operation of medical experts and practitioners. One feels that the various problems of health and disease affecting our country can be effectively solved by their local study by experts and research committees, since these maladies do not necessarily follow the text-book description and are affected by local factors.

Thus a good beginning is made for control of various diseases. Yet a good deal remains to be done. The problems of water-borne diseases like typhoid, dysentery, jaundice and cholera are linked up with the problems of water-supply, drainage and sanitation of towns and villages of our country. Similarly malnutrition and deficiency diseases reflect the low economic status of of our people, faulty food habits and non-availability of nutritious and unadulterated food at low and economic cost. Let us hope that all these problems will be solved in near future.

E. S. I. Scheme.—The Employees' State Insurance Scheme was inaugurated in Bombay on 6th October 1954, to cover the area of Greater Bombay inclusive of Virar on one side and Ambernath on the other, on the basis of Panel System with a capitation fee of Rs. 6/8/- per insured person. Though the capitation fees offered was considered uneconomical, the doctors in Bombay undertook to work the Scheme at the instance of the Indian Medical Association. The E.S.I. Scheme in Bombay by September 1957 enrolled 557,991 workers, while the Scheme at the same time all over India covered 1,403,262 workers. A number of industrial centres like Ahmedabad are yet to institute the Scheme. In Bombay there are about a thousand Panel practitioners, 54 part-time specialists, six diagnostic centres, about 450 beds reserved in general hospitals and 230 beds in tuberculosis hospitals. The E.S.I. report for 1955-56 shows that Bombay served a total of 2,881,405 patients, issued 805,535 medical certificates, referred 4,670 cases for hospital admission and 80,165 cases for specialists' investigations.

It is now accepted that the Panel System of medical relief has proved more beneficial to workers than the Service System as worked in other places. While the Service System is rigid, under the Panel System the worker has a right to change his doctor as he desires. This right serves as indirect incentive to the doctor to give his very best to the insured worker. The Bombay panel doctors worked very creditably during the influenza pandemic, most of them working for 18 to 20 hours a day at a stretch, and for which there was no extra remuneration.

It is felt that the time has come for consideration of upward revision of the present unremunerative capitation fees. One hopes that the E.S.I. Corporation and the Government will study the problem with the help of the Indian Medical Association.

The issue of extension of medical care to the family of the insured worker has been talked about for quite a long time but remains unimplemented for some reason or the other. After a very careful study the Indian Medical Association has calculated that an average family would consist of 3·8 individuals per worker and a capitation fee of Rs. 20 will be minimum possible for doctors to accept. Let the credit of medical service to the family of the workers under the E.S.I. Scheme be first given to Bombay by its implementation in the city of Greater Bombay to start with on the terms offered by the Association.

We are also looking forward to the construction of the 'Mahatma Gandhi Memorial Hospital' to be built from the funds made available by the Bombay Mill-owners Association, and the Government to provide an accommodation of 300 beds for the special benefit of the the insured workers. This will partly relieve undue pressure on the existing hospital beds in Bombay. The present practice of reservation of beds in general hospitals for the special benefit of the E.S.I. Scheme at the cost of the general public does not seem to be in tune, in my humble opinion, with the idea of "Sarvodaya". Let us hope that the Scheme of The Mahatma Gandhi Memorial Hospital will be implemented soon.

Hospital beds.—During the last twenty-five years the population of Bombay has increased from 12 lakhs to 35 lakhs. But the availability of hospital beds has increased only by a small number during the same period. Also a large numoer of patients come to Bombay from all over the country to seek medical relief. Though a great increase in total number of hospital beds is a prime necessity, it may not be practicable in the present state of our national economy. Bombay has 3,300 Government or Municipal beds for population of 35 to 40 lacs. India has 0·32 bed per thousand of population as compared to 4·7 in U.K. and 6·9 in U.S.A. 10 in Russia and aim of Bhore Committee of 7 for India. In India the total beds in 1951 were 106,478 and in 1956 being increased to 117,222, i.e., an increase of 10 per cent only. At this rate it will take 125 years to reach the present U.K. level. However, a lot can be done to increase the turn-over of the patients. At present it is not uncommon to see patients occupy beds for a number of days just because some important laboratory investigation or x-ray is available after a time which in some cases runs into several weeks. A great deal can be done to remedy this state of affairs by providing full facilities to clinical laboratories and to the x-ray departments in the form of equipment, materials, and trained technical personnel. This fact of medical relief needs proper study and quick remedy in a scientific way. With enhanced facilities medical relief can perhaps be doubled with the same number of hospital beds.

It is a matter of gratification to note that the work of rebuilding, remodelling and of expanding the Sir J. J. Hospital is already in progress. The Bombay State Government, the Minister of Health, Hon. Shri Kannamvar, and the Deputy Minister, Hon. Dr. Kailas, deserve the grateful thanks of the citizens of Bombay.

Out-door Work.—At present the out-patient departments are run mostly during morning hours at most of the hospitals. If two sessions—one morning and one afternoon—can be organised at the hospitals it will become a great relief to the citizens, at a very small cost to the authorities. In a city like Bombay where talent is available in the form of honorary medical service, the running cost compared to the benefit to the public would be negligible.

Diagnostic Centres.—Present-day medical science demands correct diagnosis of the disease so that specific and prompt relief can be administered to the sick. The concept of medical relief has changed from dispensing a bottle of medicine to specific therapy to attack the root cause. Correct diagnosis can be made in a good number of cases by clinical examination. In some cases, however, laboratory and x-ray reports become necessary. For people of the low income group, there are few centres to fulfil this demand. For Greater Bombay the Municipal Corporation can render great service by organising diagnostic centres equipped with x-ray and laboratory facilities at the present Municipal dispensaries and by opening new ones. These can be served by part-time specialists and trained technicians attached to each diagnostic centre. The initial and the recurring cost of centres will be little compared to the benefits of modern scientific medicine made available to the people of this great city.

Health Centres.—The hospital and the diagnostic centres can be utilised to promote the idea of positive health, by periodic medical check-up of all individuals, and particularly the contacts of the patients. Thus disease can be detected in its early phase.

Medical Personnel.—There is a marked shortage of doctors in India. Calculating that there are about 70,000

doctors for a population of over 36 crores, there is a doctor for every 5,000 in India as compared to 1 per 1,000 in U.K.

Serious attempts are made to remedy this situation by opening new medical colleges. Thus in 1946 there were 16 medical colleges, admitting about 1,500 medical students yearly, at present there are 50 colleges admitting about 4,500 students. Even at the present rate of medical education it will take more than 25 years to reach the target of 185,000 doctors as recommended by the Bhore Committee.

But there is another aspect of the problem that needs fresh thinking in its proper perspective. The failure rate at all the medical examinations is very high. On an average less than 20 per cent of the students admitted in medical colleges go through all the examinations at the first attempt before graduation. Taking into account that usually the first class students get admitted for medical studies and that all the teachers in medical subjects are highly qualified and experienced doctors and also that the examiners are more than fair in their assessment of the candidates' knowledge at the time of the examinations, how can this highly paradoxical phenomenon be explained? Though there may be more than one factor, one feels that there is something very wrong with the present system and methods of examinations as an instrument for assessing knowledge of medical students in various subjects of Medicine. The present system of examinations will have to be revised and replaced by a more scientific approach. Increasing importance should be given to assessment based on day-to-day work in a practical science like medicine. At the Baroda University the students earn credit to the extent of 25 per cent of the total marks at the University examinations. There is no reason why the percentage of marks set aside for credit system should not be gradually raised to 80 per cent or more. Under those circumstances medical students will pay increasing attention to learning medicine at the bedside rather than try to memorise a large number of factual data for passing examinations. One hopes that the Universities, the Medical Council of India and the Government will study this problem of high failures at medical examinations and remedy this huge national waste in terms of economy and wasted human efforts.

Conclusion

I have not touched the subjects of medical education, rural medical relief, cost of life-saving drugs, population problem and other public health problems for the sake of brevity.

Friends, let the medical personnel march ahead steadily in our nation's fight against ignorance, malnutrition, epidemics, diseases, high infant and maternal mortality, and early average death and attempt to render maximum medical relief to our brethren in spite of our limited national resources."

BRANCH NOTES

ALIGARH BRANCH—A meeting of the branch was held on 27-7-58, Dr. Miss H. Saidus Zafar presiding. Twelve members were present. Election of president and vice-presidents for I.M.A. (Central) and for the State Branch was held. Circulars of the U. P. State Branch and the Central Office were considered.

ASANSOL BRANCH—The annual general meeting of the branch was held on 13-9-58 with Dr. B. V. Gupta in the chair. The annual report and accounts for 1957-58 were presented. The report shows a rise in membership during the year. Office-bearers for 1958-59 were elected with Dr. K. Damodaran as president, Dr. N. C. Das Gupta, Dr. D. Banerjee and Dr. H. N. Mukherjee as vice-presidents, Dr. J. G. Sharma as hony. general secretary, Dr. D. P. Ghosh and Dr. K. Chatterjee as hony. joint secretaries.

AURANGABAD BRANCH—A meeting of the branch was held on 20-4-58. The president and vice-presidents of I.M.A. for 1958-59 were nominated. A meeting of the branch was held on 16-5-58. The president and vice-presidents of the State branch wer nominated. The members offered free services for inoculation of cholera vaccine to the public.

A meeting of the branch was held on 20-7-58. Five members were present. In the opinion of the members, the local Registered Medical Practitioners should be absorbed in the rural health centres.

BANARAS BRANCH—The annual report of the branch for the year 1957-58 shows that the association held 11 general and 5 scientific meetings and the Council had 11 ordinary, 2 special and 2 sub-committee meetings in the year under review. The association moved on to its own building in January, 1958. The office of Apka Swasthya were removed to the ground floor of the new building. This journal showed signs of improvement in all respects. In the clinical meeting various interesting subjects were discussed.

BARODA BRANCH—Two meetings of the branch were held on 25th August and 7th September 1958 respectively to condole the death of Mrs. Indumaliben T. Patel and Dr. Manilal L. Parikh, members of the branch. Two minutes' silence was observed on both occasions.

CALCUTTA BRANCH—The E.S.I. doctors' convention was held on the 20th April 1958 at auditorium of the All-India Institute of Hygiene. Dr. H. K. Roy, president of the Calcutta branch, presided. More than 350 doctors of Calcutta and Howrah (invited) including specialists under the E.S.I. scheme and a few members of the Society of Industrial Hygiene (invited) attended.

Dr. Souren Sengupta, Hony. Secretary, I.M.A., Calcutta Branch by way of introduction said that it was the third convention held under the Calcutta Branch. He was glad to see that the Employees and Employers were well represented by Dr. (Mrs.) Maitreyee Bose, Dr. Ranen Sen, Sri Shibnath Banerjee (Employees) and Sri K. L. Dhandhania (Employer).

Dr. A. D. Mukherjee, while inaugurating the convention explained how a fight was going on between Panel system and service system and how panel system was introduced under the guidance and influence of a group of doctors. There should not be any question of neglect of service or lack of medical knowledge among the panel practitioners. The Government and the Employers should have complete faith in panel doctors who had been selected for the purpose. It was a matter to be considered seriously, whether costly medicines should be supplied through the Panel Doctors along with the ordinary medicines. This might help in creating better faith in the medicines prescribed for treatment. He appealed in the name of humanity, to work honestly, earnestly and wholeheartedly to make the scheme a success. He congratulated the I.M.A. Calcutta Branch for calling this convention.

Dr. Deben Ghosh, Convener, read his report and also explained some of the points. He also pointed that the panel doctors were co-operating to the best of their abilities for making the scheme a success but it was a matter of regret that co-operation was lacking from the authorities. Panel doctors were compelled to send cases to the specialists centres for laboratory and radiological examinations and also for the supply of medicines. A few cases were sent for specific specialists' advice.

Dr. (Mrs.) Maitreyee Bose explained the grave importance of this convention. She said that she naturally viewed this scheme on behalf of the employees as she was dealing with them. But at the same time she had all the sympathies for the difficulties experienced by the panel doctors. She discussed about the necessity for separate E.S.I. hospital, delay in getting cash benefit,

relation between the workers and the doctors etc. and said that these problems must be solved quickly to make the scheme successful.

Sri K. L. Dhandhania said that there was no doubt that some amount of dis-satisfaction existed among the workers regarding the services rendered by the panel doctors. He said that almost all the members of the Regional Board were unanimous in all the issues but the government or the E.S.I. corporation was slow to move. What was to be done? To-day government is very touchy and emotional and is carried away by the emotions of the general public. So he suggested that the I.M.A. create a public opinion to move the government.

Sri Dakshina Ranjan Bose, the Chief Guest, said that when the scheme was introduced in Kanpur the owners of the factories were against it. India government had to promulgate Acts to enforce the scheme. If our demand was great and impressive, the government, he hoped, would amend the Acts and provisions. The scheme was implemented by the Government but it was not done with proper forethought and vision so that various difficulties are being faced by the panel doctors as well as the workers. He did not believe that the number of Ambulances could not be increased or hospital facilities could be bettered. He was sorry to know that even after 2½ years the hospital beds were quite inadequate and the specialist services were not satisfactory. He thought that a special hospital should be built for the workers immediately. He did not want to discuss the various complaints received by the newspaper men about the hospital affairs. The workers were debarred from getting cash benefit and medical benefit because the employers did not send the contributions in time to the Corporation for which the panel doctors also lost their capitation fees and fell into other difficulties.

Dr. Ranen Sen, Member Regional Board, said that he was not happy about the present scheme. In the beginning they (Labour Unions) supported the scheme and thought that the scheme would be beneficial to the workers. They could not take it as a step towards the socialistic pattern of the Society which was being so loudly advertised by the Government. The real scheme should include sickness benefit, unemployment benefit and old age pension, but in this scheme only sickness benefit was available. In spite of lapses, they wanted this scheme to be implemented. They hoped that the scheme would be implemented with the Employers and the Government's contribution alone, but they were sorry to find that the workers were also to contribute and to contribute quite a substantial amount from their meagre pay. In comparison to their contribution the employers' contributions were significantly low. He explained in details the unnecessary difficulties and harassments the doctors and the workers were to face in respect of the scheme because of the official paraphernalias. To facilitate smooth running of the scheme, he suggested some measures e.g. to expand the list of medicine, to increase the hospital beds, to improve and increase specialists centres to build a special hospital etc. I.M.A. should press hard and pursue the matter. He appealed to the panel doctors to uphold the noble tradition of the profession.

Dr. Salil Dutt, Hony. Secretary, I.M.A., Bengal Provincial Branch, while thanking the speakers, wanted to impress upon the fact that the conditions and structure in which the hospital doctors had to work were responsible for the bad service in hospitals and not due to the lapses of the doctors. He urged upon the Government to form an enquiry committee to go into the details of the difficulties encountered by the panel doctors and the specialists and also about the hospital affairs.

BELLARY BRANCH—An emergent meeting of the branch was held on 23-7-58 with Dr. P. Sreenivasachar in the chair. The members condoled the death of Dr. A. E. Fernandes, the president of the branch who died on 21-7-58 of heart failure.

CHALISGAON BRANCH—A meeting of the branch was held on 7-9-58 with Dr. Karnalkar in the chair. Elections of the president and vice-president of the first Maharashtra Territorial Medical Conference were held. Office-bearers of the branch were elected with Dr. R. B. Karnalkar as president and Dr. V. R. Kulkarni as hony. secretary. Two new members were admitted. The members were requested to conduct the medical examination of the students of the A. B. High School and to credit the remuneration to the branch fund.

CHITALDROOG BRANCH—A general body meeting was held on 9-8-58, Dr. M. Rama Rao presiding. After the secretary's report for 1957-58 were read, office-bearers for 1958-59 were elected with Dr. L. N. Rajagopala Rao as president, Dr. M. Rama Rao and Dr. Venkatachala Iyengar as vice-presidents and Dr. M. Appajappa and Dr. B. Ramakrishna Reddy as secretaries. Interesting radiograms were shown by Dr. M. Appajappa.

COIMBATORE BRANCH—A meeting of the branch was held on 31-5-58. Ninety members were present. Dr. T. V. Sivanandam presided. The president expressed the opinion that Coimbatore needs a medical college. The remuneration of the medical men in government service should be increased, honorary system in medical colleges should be extended and panel system in E.S.I.S. should be extended to areas where it had not been done. The Health Minister, Sri M. A. Manickavalu Naiker gave a suitable reply. Dr. (Mrs.) K. I. Vytilingam of Christian Mission Hospital, Vellore spoke on "Management of Heart Disease".

CUTTACK BRANCH—An emergent meeting of the branch was held on 26-4-58 with Dr. K. N. Misra in chair. Dr. G. S. Dasmohapatra spoke on Intestinal Obstruction. It was decided that the IMA should inform the public about the real state of affairs as regards vaccination.

DELHI STATE BRANCH—A scientific lecture was held on 9-5-58. Dr S. Man Singh spoke on Common Diseases of the Rectum and Anal Canal.

An extraordinary meeting was held to nominate the president and vice-presidents of IMA for 1958-59. An executive committee meeting was held on 29-5-58.

An executive committee meeing was held on 30-6-58. Thirteen members were admitted.

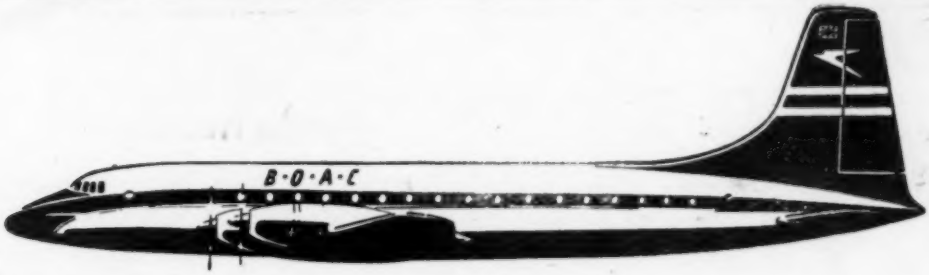
A meeting of the branch was held on 2-7-58 to condole the death of Dr. H. C. Gupta, a member of the Association.

DHAR BRANCH—The half-yearly report of the branch for the year 1957-58, shows that regular meetings were held every month and besides the normal business, clinical subjects were discussed. There were 28 members on the roll.

DHARWAR BRANCH—The annual general meeting of the branch was held on 7-9-58. Office-bearers for 1958-59 were elected with Dr. K. M. Kale as president, Dr. C. S. Kurdikeri as hony. secretary.

GHUGUDANGA BRANCH—A meeting of the branch was held on 28-9-58 with Dr. S. Sarker in the chair. The date for holding the annual meeting of the branch was provisionally fixed. Dr. S. Sen and Dr. S. K. Ganguly were selected as representatives of the branch to the Industrial Areas Medical Practitioners' Conference at Titaghar on 12-19-58.

GOGRI BRANCH—A meeting of the branch was held on 4-5-58. The members invited the attention of the State Government regarding the sale of sulpha, antibiotics etc. These drugs are sold in the market without the prescription of a registered doctor. The Drug Control Act should be fully implemented to stop this sale. It was also decided to request the State Secretary to grant special casual leave to doctors in government service attending the Refresher Course.



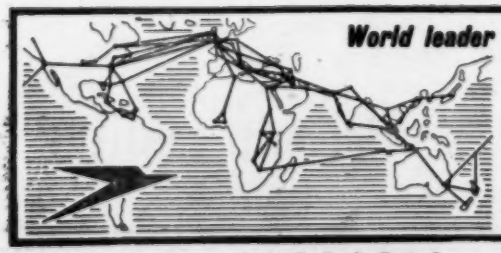
BOAC Britannia to Europe

ISTANBUL • ATHENS* • ROME • ZURICH
FRANKFURT and LONDON for
PARIS • AMSTERDAM • BRUSSELS
or any city of your choice

For information and bookings consult your local BOAC Appointed Travel Agent or any office of BOAC at Bombay, Calcutta, Delhi and Madras.

Remember—it costs no more to fly by BOAC

**A QANTAS Destination*



World leader in air travel

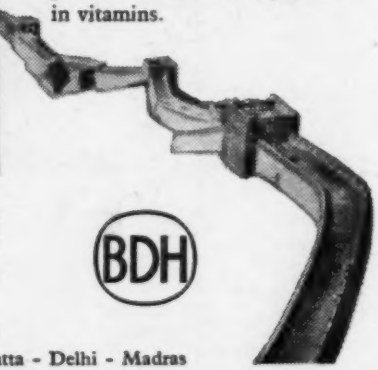
B·O·A·C

takes good care of you

BRITISH OVERSEAS AIRWAYS CORPORATION

To Afford Protection...

The Great Wall of China, which is more than 1500 miles and dates back to 200 B.C., was built to protect China from invaders. Likewise MULTIVITE will afford protection against vitamin deficiencies in children and patients whose diet may be low in vitamins.



MULTIVITE

WILL KEEP THEM BRIGHT

BDH

BRITISH DRUG HOUSES (INDIA) PRIVATE LIMITED
P. O. Box 1341, Bombay-1. Branches at: Calcutta - Delhi - Madras

ENTEROGUINE
BRAND TABLETS

A scientific combination of Iodo-chloro-oxyquinoline and Sulphaguanidine. Specific in the treatment and cure of any type of dysentery—both acute and chronic.

ALKAVIT
BRAND

Di-Sodium Hydrogen Citrate with Vitamin C.

Indicated in Pyrexia and Febrile conditions due to Catarrh, Cold, Cough and Influenza : and also in Infectious diseases e. g., Typhoid, Pneumonia, Pox etc.

SULFOSOL
BRAND

Sodium Sulphacetamide Drops in 15% & 30% Solutions.

Indicated in :— Eyes—Conjunctivitis ; Blepharitis ; Corneal ulcerations.
Ears—Ottorrhoea ; Furunculosis ; Ulcerations ; etc.

MANUFACTURED BY :—

Alliance Trading Corporation Private Limited

15 SWINHOE LANE • KASBA • CALCUTTA-31.

JABALPUR BRANCH—The annual general meeting of the branch was held on 14-9-58 with Dr. B. N. Chakravarti in the chair. The annual report and acccounts for 1957-58 were presented. Office-bearers for 1958-59 were elected with Dr. Miss A. K. Kamdin as president, Dr. T. P. Neogi, Dr. S. S. Shrivastava and Dr. A. G. Joshi as vice-presidents, Dr. V. P. Khare as hony. secretary, Dr. C. K. Tiwari, Dr. Miss B. G. Malik, Dr. S. L. Mukherji as joint secretaries.

JAISINGUR BRANCH—A meeting of the branch was held on 18-4-58. Office-bearers for 1958-59 were elected with Dr. S. S. Bhirdi as vice-president and Dr. F. A. Deane as secretary.

JUNAGADH BRANCH—The annual day of the branch was celebrated on 24-8-58. The members of the branch as well as district members were present.

A general meeting was held on 5-9-58. Office-bearers were elected with Dr. R. P. Vyas as president, Dr. C. M. Indu as vice-president, Dr. P. M. Mody as hony. secretary and Dr. L. N. Jani as joint hony. secretary.

KHAMMAMETH BRANCH—A general body meeting of the branch was held on 7-9-58 with Dr. N. V. Sitharama Rao in the chair Office-bearers were elected with Dr. A. Hussain as president, Dr. N. V. Sitharama Rao as vice-president and Dr. Y. Radhakrishna Moorty as hony. secretary. Dr. Y. Radhakrishna Moorty presented 3 cases of Stiff Shoulder which was followed by a discussion.

KOTALPUR BRANCH—A meeting of the branch was held on 6-8-58. Dr. M. M. Ray presided. Twentyfive members were present. A report of a case of Tetanus was presented.

MALEGAON BRANCH—The annual meeting of the branch was held on 14-9-58. The annual report and the statement of accounts were approved. Office-bearers for 1958-59 were elected with Dr. B. N. Khandha as president, Dr. V. D. Mehta as vice-president, Dr. G. S. Parnaik as hony. general secretary and Dr. R. N. Bendale as hony. joint general secretary.

MIRAJ BRANCH—A meeting of the branch was held on 22-7-58 with Dr. A. G. Fletcher in the chair. Dr. Gaikwal and Dr. Donaldson presented a case of Fibro-Sarcoma forehead which was removed and skin grafting done. Dr. A. G. Fletcher and Dr. Banerjee presented a case of a boy aged 1 year 9 months, suffering from Pulmonary Tuberculosis having a cavity of the right apex. Resection of right upper lobe was done with success.

MORVI BRANCH—The annual general meeting was held on 31-8-58. Sixteen members were present. Dr. S. B. Shukla presided. Office-bearers for 1958-59 were elected with Dr. C. T. Mehta as president, Dr. P. D. Raval as vice-president, Dr. S. L. Munshi as secretary and Dr. H. M. Shah as joint secretary.

A meeting was held on 18-5-58. A farewell address was presented to Dr. V. L. Bakshi, an eminent physician of the town.

A meeting was held on 22-6-58. Dr. V. N. Vaishnav, Medical Officer, Veterinary Artificial Insemination Centre addressed on the subject with demonstration of the various stages of the procedure.

A meeting was held on 11-8-58 to elect president and vice-president of I.M.A. for 1958-59.

A meeting was held on 31-8-58 when Dr. Mrs. S. Pushkarna spoke on Family Planning.

MYSORE BRANCH—The activities of the branch from 20-1-58 to 3-5-58 show the following:

A Refresher Course was arranged from 20-1-58 to 28-1-58. Fortysix doctors attended. On 25-1-58, a clinical meeting was held. Dr. M. Basavaraje Urs presided. One hundred and five doctors were present. A film show on Varidase was arranged. Dr. B. Venkatanarayana Setty demonstrated a case of Enlargement of Liver due to Amoebiasis. Dr. B. Krishna Murthy reported a case of Thrombosis of Left Iliac Artery with Gangrene of the Foot and Leg and demonstrated Angiography of that case.

On 2-2-58 a clinical meeting was arranged. Dr. A. K. Gopalarajon presided. Fifty five members were present. The members condoled the death of Moulana Abul Kalam Azad. Dr. Mariamma of Holdsworth Memorial Hospital demonstrated (1) a case of Pulmonary Tuberculosis in a boy of 6 years, (2) a case of Surgical Emphysema in a child of 2 years. Dr. N. Krishnamurthy demonstrated (1) Slides showing Capsulated Donovan Bodies, (2) Extra-genital Venereal Granuloma in a man of 25, (3) Herpes Zoster in a girl of six. A clinical meeting was held on 29-3-'9. Dr. R. Sheshadri Iyengar presided. Fiftyone members opposed the resolution of Dr. S. C. Sen regarding rates of subscription on the basis of income of the members. Dr. S. Madhava Rao demonstrated a case of Multiple Myeloma in a man of 50 years. Dr. G. Desi Kachar demonstrated radiograms of Bone Sarcoma before and after irradiation.

NADIAD BRANCH—The annual meeting of the branch was held on 28-9-58. It was decided to hold provincial conference every two years. The annual report of the branch for the year 1957-58 shows that 30 meetings were held during the year. The president of the Gujarat & Saurashtra Territorial branch, Dr. G. B. Mankad, Hony. Secretary, Dr. P. R. Trivedi, visited the branch in March 1958. Office-bearers for 1958-59 were elected with Dr. M. D. Saigal as president, Dr. H. R. Patel as vice-president, Dr. K. M. Shah as hony. secretary.

NELLORE BRANCH—A meeting was held on 14-6-58 with Dr. S. R. Singh in the chair. At the outset, the members observed two minutes' silence in memory of the death of Dr. A. V. S. Sharma at Madras. Dr. Kutumbiah spoke on Nephritis.

A meeting was held on 19-7-58 with Dr. S. R. Singh in the chair. Dr. M. V. Krishna Reddi was felicitated on his being elected as M.L.C. Dr. R. Subramanian spoke on Cirrhosis of the Liver. Election of President and Vice-Presidents of I.M.A. (Central) was held. The meeting requested the Chairman, Nellore Municipal Council for the grant of a plot of land in the central area for erecting a house for the association.

A general body meeting of the branch was held on 11-9-58. Nominations for the president and vice-presidents of the Andhra Pradesh Branch, I.M.A. were made.

PATNA BRANCH—The report of the branch for the 1st half of 1957-58 shows that 47 new members were enrolled. Refresher Course lectures were arranged on every Friday in the evening, and popular lectures every Saturday. The Health Week was celebrated in collaboration with the Bihar State Branch.

PILIBHIT BRANCH—The branch was revived on May 31, 1958 and office-bearers were elected with Dr. M. P. Chaturvedi as president, Dr. B. R. Mahajan as vice-president and Dr. C. L. Saxena as hony. secretary. The branch consists of 11 members.

PORBANDAR BRANCH—At the annual general meeting of the branch held on 21-9-58, office-bearers were elected with Dr. H. H. Chavda as president. Dr. P. M. Mehta as vice-president and Dr. B. D. Jhala as hony. secretary and Dr. R. R. Soneji as hony. joint secretary for the year 1958-59. Statement of accounts for 1957-58 were presented. The following films were shown (1) Resuscitation of Health, (2) Anti T. B. Drugs, (3) Moniliasis—its treatment.

RATANGARH BRANCH—A meeting of the branch was held on 30-3-58 at the Seth Ajeetsarya's Eye Hospital. A number of cases was shown to the members.

A meeting was held on 27-4-58 at the Zenana Hospital on 27-4-58. Dr. R. B. Agarwal spoke on Fractures of Femur.

A meeting of the branch was held on 7-6-58. A set of cases of the hospital were demonstrated by D.M.H.O., Dr. R. B. Agarwal. One case of Cystic Liver was also shown and discussed.

RATLAN BRANCH—The annual meeting of the branch was held on 20-9-58, with Dr M. S. Shukla in the chair. Office-bearers for 1958-59 were held with Dr. M. S. Shukla as president, Dr. R. B. Mclure as vice-president, Dr. B. N. Mehta as hony. secretary and Dr. D. D. Mudgil and Dr. R. L. Chordia as joint secretaries. The branch has 28 members on the roll. Dr. Mclure demonstrated a case of V.V.F.

SHILLONG BRANCH—On 21-7-58, the members of the branch met at Tea, the District Officers of the State Health Department. On this occasion, Dr. M. Bawden from Adelaide and Dr. Ian Lyall from Melbourne spoke on Australia, its land, its people and health services, with charts and illustrations. Later, elections for the President and Vice-presidents of I.M.A. (Central) was held.

SHIMOGA BRANCH—The half-yearly gathering of the Branch was held on 21-6-58. Dr. B. N. Rangappa presided. The following subjects were discussed at the clinical meeting : Talk on Cholera by Dr. M. Shama Rao; Case Report on Ruptured Uterus by Dr. Lalitha Lingiah; Case Report on Extensive Bilateral Tuberculosis by Dr. B. L. Shamanna; Case Report on Pneumothorax by Dr. B. M. Thippeswamy.

A monthly meeting was held on 9-7-58, Dr. Lalitha Lingiah presiding. The following subjects were discussed at the clinical meeting : Abnormal Haemoglobin by Dr. Susheela Swarup; A case of Suspected Carcinoma of the Maxillary Antrum in a girl aged 14 years by Dr. A. S. Kantharaja Setty; A case of Chronic Myeloid Leukaemia by Dr. N. P. Thimmappa; Demonstration of Some Aspects of Haematological Technique by Dr. Susheela Swarup.

An extraordinary meeting of the general body of the branch was held on 9-8-58. Dr. D. Shamanna was in the chair. The clinical meeting was presided over by Dr. N. R. N. Narayan. He addressed the members on Clinical Significance of Haematuria. The following cases were demonstrated, (1) Carcinoma of the Neck by Dr. D. Shamanna, (2) A Cystic Swelling in the Gluteal Region by Dr. B. R. Shama Rao, (3) Complicated Frontal and Maxillary Sinusitis by Dr. A. S. Kantharaja Setty.

SITAPUR BRANCH—A meeting of the branch was held on 31-7-58. Dr. Partap Bahadur presided. Dr. K. B. Kunwar of Lucknow Medical College spoke on Diabetes and Antidiabetics. Dr. J. M. Pahwa demonstarted a case of suspected Pituitary Tumour with Calcification in the skull on either side of midline.

SOUTH ARCOT BRANCH—A general body meeting of the branch was held on 14-6-58. Dr. C. Krishnaswamy Raju was elected joint secretary in place of Dr. K. M. Venkatachalam, transferred. Dr. B. Veda of Cuddalore gave a talk on "The Management of Common Fevers".

The general body meeting of the branch was held on 19-7-58. Dr. M. V. Bhat gave a talk on Management of Infections of the hand.

TENALI BRANCH—A meeting was held on 8-6-58, Dr. Y Madhava Rao presiding. Dr. P. Brahmayya addressed the members on Water and Electrolyte Balance in Health and Disease. Some clinical cases were presented by members Discussions followed. A special resolution congratulating the organisers of the Kakinara Medical College on their bold venture was adopted.

A meeting of the branch was held on 30-8-58. Dr. Y. Madhava Rao presided. Dr. G. Rama K. Raju of the Guntur General Hospital spoke on Management of Toxaemias and Post-partum Haemorrhage. A sub-committee was appointed to do the spade work for the construction of a building for the branch.

TIRUCHY BRANCH—A meeting of the branch was held on 19-7-58. Dr. L. S. Ramachandran presided. Fortyseven members were present. The members condoled the death of Dr. M. R. Guruswamy, Dr. A. L. Annamalai of Govt. General Hospital, Madras spoke on Diagnosis and Treatment of Bronchial Asthma.

VIJAPUR BRANCH—A meeting was held on 22-7-58. Rural Medical Relief programme of G. S. and K. Territorial Branch was discussed.

A clinical and annual meeting of the branch was held on 7-9-58, along with the Kalal branch. Various subjects of interests were discussed.

The office-bearers of the Vijapur Branch for the year 1958-59 were elected with Dr. M. B. House as president, Dr. C. R. Gandhi as vice-president, Dr. B. C. Gandhi as hony. secretary and Dr. C. G. Shah as joint hony. secretary.

VIJAYAWADA BRANCH—A general body meeting of the branch was held on 10-9-58, Dr. B. Sambamurty presiding. Nominations of president and vice-presidents for the Andhra Pradesh State Branch for the next official year were done.

VISAKHAPATNAM BRANCH—A meeting was held on 19-7-58, with Dr. M. Krishnamurty in the chair. After the nomination of the president and vice-presidents for the central organisation were made. The following cases were demonstrated :

Tuberculous Kidney and Carcinoma Breast by Dr. M. Krishnamurty; and Lung Abscess by Dr. V. S. Raghunandan.

A general body meeting of the branch was held on 23-8-58 with Dr. G. V. Satyanarayanamurthy in the chair. The following cases were demonstrated. 1. Achalasia Cardia. 2. Hiatus Hernia, from the wards of Dr. B. Sundararamamurty and a case of Inversion Uterus and a case of Rupture Uterus from the wards of Dr. N. S. Subhadradevi.

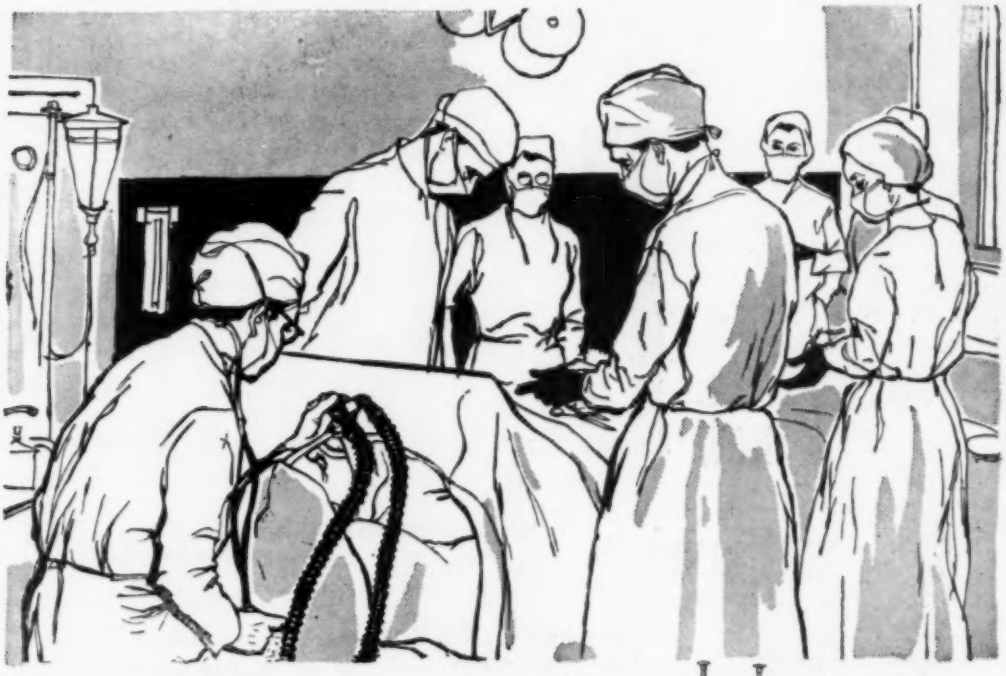
IX ASSAM MEDICAL CONFERENCE, DIBRUGARH, 1958

The 9th Assam Medical Conference, will be held in the Assam Medical College, Dibrugarh on 5-6 November 1958. There will be a Scientific Symposium and a Health Exhibition, Exhibition of Medical, Surgical and Sanitary products and appliances. A Souvenir will also be published.

• • • •

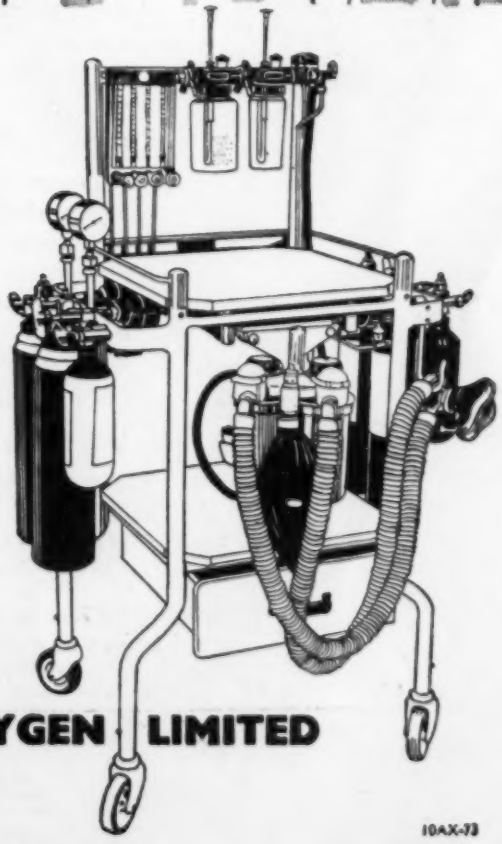
XIII MADRAS STATE MEDICAL CONFERENCE, 1958

The 13th Madras State Medical Conference will be held on 29-30 November and 1 December 1958. There will be a Scientific Session during the conference and an Exhibition of Pharmaceutical Products and Surgical Instruments. The Reception Committee has been formed with Dr. P. Alagasingari Naidu as Chairman and Dr. B. Rama Rau and Dr. G. Ramchandra Murthy as hony. secretaries.



Anaesthetists' Choice

The science of Anaesthesia today has at its command a wealth of specialised apparatus, undreamt of by the early pioneers of surgery. Indian Oxygen is proud of its services to the medical profession in India, in making available a comprehensive range of modern anaesthetic appratus and medical gases. The Boyle apparatus illustrated, for hospital use, is conveniently mounted on a table with ball-bearing castors for easy mobility ; now assembled in India to the same high standards as in the United Kingdom, this apparatus is normally available from stock.



INDIAN OXYGEN LIMITED

10AX-73

a new **Equanil**⊖ *

anti-anxiety

factor

Meprobamate (2-methyl-2-n-propyl-1,3-propanediol dicarbamate)

Appropriate to an age of mental and emotional stress, 'EQUANIL' has demonstrated remarkable properties for promoting equanimity and release from tension, without mental clouding.

'EQUANIL' is a pharmacologically unique anti-anxiety agent with muscle-relaxing features.

Acting specifically on the central nervous system, it has a primary place in the management of patients with anxiety neuroses, tension states, and associated conditions.[1,2] In clinical trials, patients respond with "... lessening of tension, reduced irritability and restlessness, more restful sleep, and generalised muscle relaxation."[2]

Wyeth

Clinical use is not limited by significant side-effects, toxic manifestations, or withdrawal phenomena.[1,2]

Supplies : *0.4 Gm. Tablets in bottles of 20 and 100.*
0.2 Gm. Tablets in bottles of 20.

1. SELLING, L.S.: J.A.M.A. 157: 1594 (April 30) 1955.
2. BORRUS, J.C.: J.A.M.A. 157: 1596 (April 30) 1955.

JOHN WYETH & BROTHER LIMITED
(Incorporated in England with Limited Liability)
Steelcrete House
Dinshaw Wacha Road, Bombay 1.

J. 31

* Trade Mark

XXXV ALL-INDIA MEDICAL CONFERENCE, CUTTACK

The Organisers of the XXXV All-India Medical Conference have issued the following : —

The 35th Annual Conference of the Indian Medical Association will be held at Cuttack, Orissa, during the last week of December, 1958. The conference will be attended by about 2000 delegates and distinguished visitors from all over India.

A Souvenir will be published to commemorate this happy occasion and about 4000 copies will be distributed.

A Scientific & Industrial Exhibition will be held during the conference, depicting the most modern advancement in medicine and allied sciences.

Those who are associated with the development and progress in the modern system of medicine are hereby requested to extend their active co-operation to make the conference a real success.

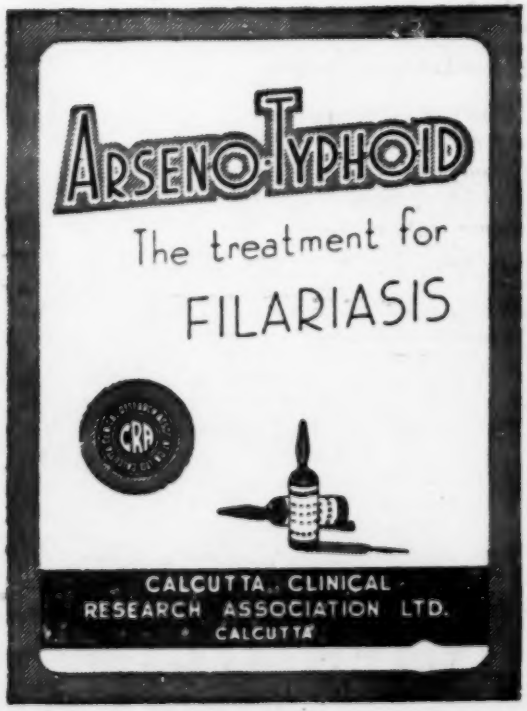
Interested participants may please correspond with :

Organising Secretary

XXXV ALL-INDIA MEDICAL CONFERENCE

S. C. B. MEDICAL COLLEGE COMPOUND, CUTTACK-1 (ORISSA)

(Gram :—' MEDORA ' Cuttack)



NEW BOOK 1956 NEW BOOK

Textbook of Pharmacology and Therapeutics

BY

BIRENDRA NATH GHOSH, F.R.F.P.S. (Glas), F.R.S. (Edin)

Professor of Pharmacology, R. G. Kar Medical College, Cal.

An entirely new book for students and a work of reference for practitioner. Incorporating all drugs in B.P. 1953 & addendum 1955 and also all Drugs included in the Indian Pharmacopoea published in 1953.

Size-Royal, Page xv-650. Price Rs. 20/- or 35s.

SCIENTIFIC PUBLISHING CO.

85, NETAJI SUBHAS ROAD,
P. B. No. 969, Calcutta-1

Telephone : 22-5566 Telegram : CREOLION

9th TB SEAL CAMPAIGN

From 2nd October, 1958 to 26th January, 1959

.05 nP each

.05 nP each

DOCTOR !

Buy your self and request your wide clientele to buy and help to control TB

BENGAL TUBERCULOSIS ASSOCIATION

Plot-21, Scheme XLIX, New C. I. T. Road, Calcutta-14.

Printed by SRI TARANI KANTA BASU at SRI GOURANGA PRESS PRIVATE LTD., 5, Chintamani Das Lane, Calcutta-9 and published by him on behalf of the Indian MEDICAL ASSOCIATION from 23, Samavaya Mansions, Corporation Place, Calcutta-13.
Editor—DR. P. K. GUHA, M.B., M.R.C.S. (ENG.), D.O.M.S. (LOND.)

9 OUT OF 10

RESPOND BEST TO SYNERMYCIN MARK OF TRUE BROAD-SCOPE SYNERGISM

Over 90 per cent of the infections seen by the average physician are best treated with Synermycin The unique synergism of its two components—tetracycline and oleandomycin—assures rapid and dependable action against numerous bacterial strains, including many that are resistant to other antibiotics.

Synermycin is the logical choice for the 9 out of 10 infections treated at home or office, where complete laboratory tests are not practicable.

CAPSULES 250 mg., bottles of 8, 16 and 100
INTRAVENOUS 250 mg.,

Pfizer *World's Largest Producer of Antibiotics*
VITAMIN-MINERAL FORMULATIONS • HORMONES

RAVISON PHARMACEUTICALS PRIVATE LTD.
Post Box 1636, Bombay 1.

Exclusive Distributors in India for
PFIZER EASTERN CORPORATION,
New York, Panama & Brussels

*Trademark of Chas. Pfizer & Co., Inc.

SYNERMYCIN HAS PROVED SUCCESSFUL IN

- 96% of respiratory tract infections
- 98% of digestive tract infections
- 94% of genitourinary tract infections
- 95% of infections of the bones, soft tissues and skin
- 98% of miscellaneous systemic infections
- 98% of staphylococcal infections resistant to other antibiotics

SYNERMYCIN*
Oleandomycin-tetracycline